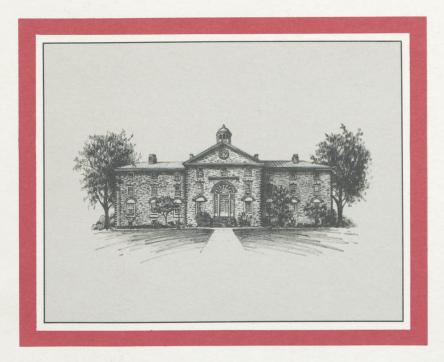
DICKINSON



College Catalogue 1989-1990

Accreditation

The principal accrediting agency for the College is the Middle States Association of Colleges and Secondary Schools. Other agencies accrediting or recognizing Dickinson are the University Senate of the United Methodist Church, the Pennsylvania Department of Education, the University of the State of New York, and the American Chemical Society.

Directions for Correspondence

General College Policy

Academic Information

Admissions

Business and Financial Affairs

Communications and Development

Continuing Education

Summer School

Financial Aid

Off-Campus Study

Records and Transcripts

Student Affairs

A. Lee Fritschler, President of the College

George Allan, Dean of the College

J. Larry Mench, Dean

Michael L. Britton, Treasurer

Robert O. White, Executive Director

Peggy Garrett, Director

Stephen C. MacDonald, Director

Donald V. Raley, Director of Financial Aid

John S. Henderson, Director

Ronald E. Doernbach, Registrar

Carmen G. Neuberger, Dean

College Phone Number: 717-243-5121

Production of this catalogue is under the direction of the Office of Academic Affairs. Information given here is correct as of the date of publication. Unexpected changes may occur during the academic year; therefore, the listing of a course or program in this catalogue does not constitute a guarantee or contract that the particular course or program will be offered during a given year. An issue of the Dickinson College Bulletin published by Dickinson College, Carlisle, PA 17013-2896. Send address changes to Dickinson College Bulletin, Dickinson College, Carlisle, PA 17013-2896.

Dickinson College

Founded: 1773, one of the 15 colonial colleges

Curriculum: a four-year program of study in the liberal arts. The academic calendar consists of fall and spring semesters and an optional summer term.

Degrees granted: Bachelor of Arts, Bachelor of Science

Major fields of study: American studies, anthropology, biology, chemistry, computer science, dramatic arts, East Asian studies, economics, English, fine arts, French, geology, German, Greek, history, international studies, Judaic studies, Latin, mathematics, music, philosophy, physics, policy and management studies, political science, psychology, religion, Russian, Russian and Soviet area studies, sociology, Spanish.

Special programs: comparative civilizations, environmental studies, financial and business analysis, Italian studies, Latin American studies, military science (ROTC), secondary teaching certification.

Special options: pre-professional preparation: law, medicine, business, ministry, journalism, binary engineering; double majors, self-developed majors, departmental honors, tutorial study, independent study, independent research; internships; Nisbet scholars program; study-abroad programs.

Number of faculty: 145, plus 31 academic support faculty; of the permanent faculty 94 percent have the earned Ph.D. or other highest degree.

Student-faculty ratio: 11:1

Average class size: 18 students per class; 90 percent of all offerings are conducted with 30 or fewer students; 60 percent of all offerings have 15 or fewer students. Of the 480 offerings in the fall 1988 semester, only 12 had more than 50 students.

Location: Carlisle, founded 1756, is a pre-revolutionary town of 20,000 people located in the Cumberland Valley of central Pennsylvania. Interstate highway, rail, and air transportation link all major east-coast cities. Driving times to: Harrisburg, 1/2 hour; Baltimore, 2 hours; Washington, D.C., 2 1/2 hours; Philadelphia, 2 1/2 hours; Pittsburgh, 4 hours; New York, 4 hours.

Size of campus: 58-acre main campus and 74-acre recreation area.

Library facilities: 451,381 volumes, including 114,097 government documents; 1,502 current periodicals; 134,800 sheets of microfiche; 8,700 reels of microfilm; 7,439 music recordings; 128 videotapes.

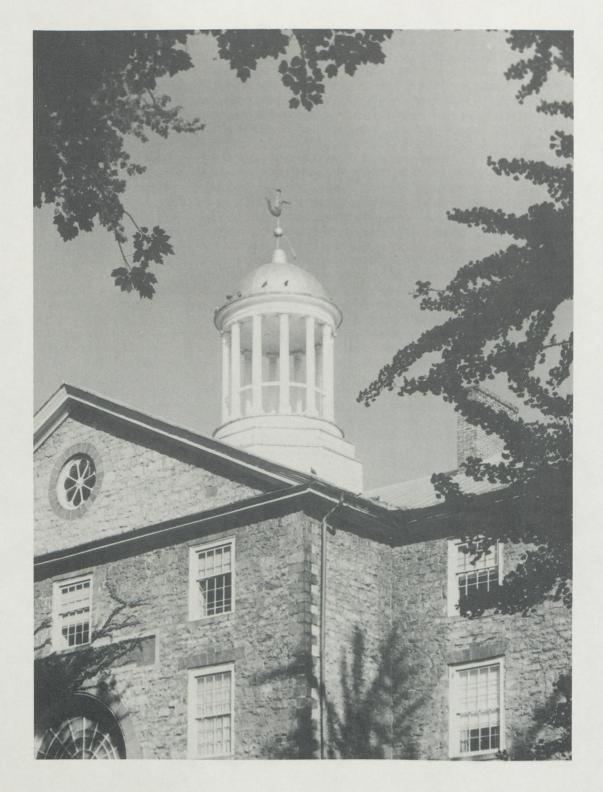
Computer facilities: Digital Equipment Corporation VAX 8600 computer; 67 microcomputers and 25 terminals in 6 open facilities for students; 76 micros and 17 terminals for students in specific departments. Faculty, administration, and staff use an additional 207 micros and 80 terminals. Students use a wide range of software for word processing, statistical analysis, electronic mail, programming, and searching the on-line catalogue of the library. All students are assigned a VAX account as freshmen. There are no charges for computer use.

Residence Halls: 52 facilities housing between three and 200 students. Housing options include male, female, and coed residence halls. Some housing is available for students with special interests such as foreign languages, multicultural affairs, the arts, and for social interest groups.

Student enrollment: 1991 on campus plus 188 in various domestic and international study programs. Students come from 42 states, two U.S. territories, and 18 foreign countries.

Student Financial Aid: Over 60 percent of all students receive financial assistance in some form. Approximately 45 percent receive grant aid from the college.

College Financial Data: Physical Plant Value (as of 6/30/88), \$56,601,414; Total Endowment Value (as of 6/30/88), \$39,145,884; Operating Budget for 1988-1989 academic year, \$39,473,830.



History of the College

he citizens of frontier Carlisle founded a grammar school in 1773 on land donated by Thomas and John Penn, but classes were temporarily suspended when the first schoolmaster went off to serve at Valley Forge. With an optimism buoyed by colonial independence, Philadelphia physician Benjamin Rush argued that the fledgling grammar school should be transformed into a college that would be "a source of light and knowledge to the western parts of the United States," to the wilderness lands stretching west from the Susquehanna. John Dickinson, the governor of Pennsylvania and drafter of the Articles of Confederation, was persuaded by this argument, and on September 9, 1783, a charter was approved by the "Representatives of the Freemen of the Commonwealth of Pennsylvania." The new college, founded by Presbyterians but with an independent Board of Trustees, was dedicated to "the instruction of Youth in the learned languages" and in the "useful arts, Sciences, and Literature."

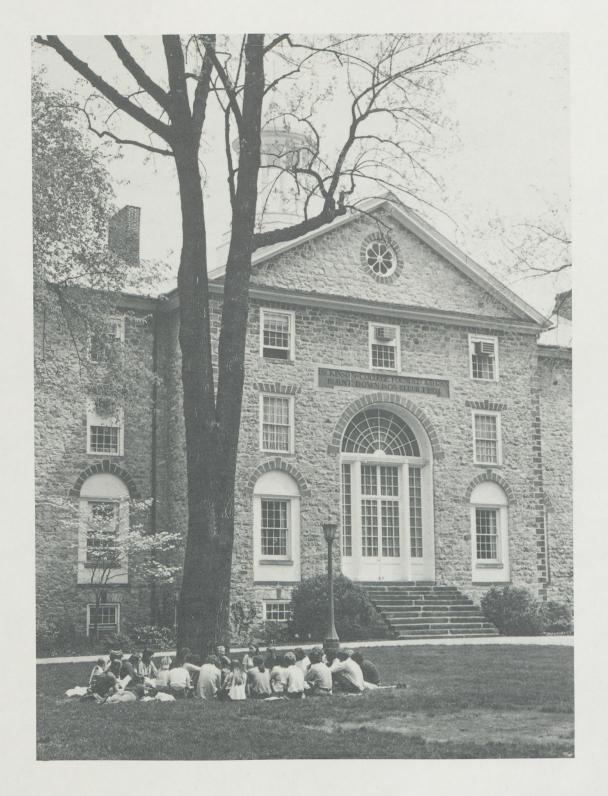
Charles Nisbet, a Calvinist minister from Scotland, was the first Principal of the College. His insistence on rationality and high standards of learning set the tone for Dickinson in its early years, and encouraged the founding of two of the nation's oldest continuing literary societies, the Belles Lettres in 1786 and the Union Philosophical in 1789. Chief Justice Roger Brooke Taney and President James Buchanan were among their early student members. The College's first permanent building, Old West, was completed in 1804. It was designed by Benjamin Latrobe, the architect of the Capitol building in Washington, and was crowned by a weathervane replica of a classical sea deity. This deity was rendered by a local coppersmith in the form of a buxom mermaid which has ever since been one of the distinctive symbols of this otherwise very inland campus.

In the early 19th century the dour traditionalism of President Atwater clashed with the Jeffersonian radicalism of Thomas Cooper, who made it possible for the College to purchase his late friend Joseph Priestley's scientific apparatus. Because of these controversies, Dickinson fell on hard times until 1834 when it came under the sponsorship of Methodists, regaining educational vitality through the leadership of its new president, John Price Durbin. During the Civil War, Dickinson sent her sons to fight on both sides, hopeful "that college loyalties would bind where civil strife separated."

In the years after the war Dickinson leavened its abiding commitment to liberal education with a number of interesting innovations. The College became coeducational in 1884 in response to the courage of its first woman student, Zatae Longsdorf. The law department, inaugurated in 1833, became the Dickinson School of Law in 1890 and, since 1917, independent from the College. Dickinson introduced elective courses for its students, and under President George Reed fashioned for a time a Department of Peace and Public Service. Following World War I James Henry Morgan presided over a new educational experiment which required students to graduate with a major field of concentration as a part of their general baccalaureate.

After 1960, under the leadership of Presidents Howard L. Rubendall, Samuel Alston Banks, and A. Lee Fritschler, Dickinson College has developed a balanced and diverse curriculum of the liberal arts. Strong disciplinary programs have cooperated in fostering a range of interdisciplinary and area studies opportunities. This in turn has led to strengths in international education, pre-professional preparation, and the sciences. The curriculum has been further enriched by such programs as freshman seminars, internships, and the Nisbet Scholars program.

Dickinson's gray-walled campus has always served as a park and playing field for students, its history punctuated by major fires, by the bivouac of a Confederate Army in 1863, by the parade drill of soldiers in 1917 and 1942. For a time professors and students cultivated cabbages and onions there. Today classes are often held on the campus grass in spring and summer weather, and there also Commencement ceremonies occur by "the old stone steps" of Old West.



1989-1990 BULLETIN

DICKINSON COLLEGE

Carlisle, Pennsylvania 17013-2896



The distinctive Dickinson College seal was devised and recommended by John Dickinson and Dr. Benjamin Rush at a board of trustees meeting in April, 1784. Rush conceived the symbolic design: a liberty cap above a telescope, which is in turn above an open book; and Dickinson provided the motto: *Pietate et doctrina tuta libertas*. One translation is "Liberty is made safe by piety and learning." A Rush letter to Dickinson in June, 1785 refers to the College as the "bulwark of liberty, religion and learning."

Using This Catalogue

elcome to the Dickinson College catalogue. This publication is designed to set forth in detail and as clearly as possible the resources which the College offers to its students. We believe that the catalogue is essential reading because it reveals the philosophy, the programs, and the character of the College and its people. It will help you gain a better understanding of Dickinson by presenting our point of view concerning the importance of the liberal arts in higher education, as well as the programs—academic and residential—that Dickinson has developed. It is a discussion of what we are, what we believe, and what we support.

If you are a prospective applicant to Dickinson, you will want to pay particular attention to the General Information section, where you will learn about the Dickinson educational experience, including the College's commitment to the liberal arts tradition, an overview of our curriculum, and an introduction to our residential environment. Information on admission, expenses, and financial aid also is found there.

Information that you will need to build a four-year program of study is grouped together under the Academic Program section. The introductory essay describes what it is like to study at Dickinson, the depth, breadth, and flexibility we offer within our liberal arts program. Information on requirements for the degree will show you the shape of your educational experience, while the departmental listings will give you the specific details. Each listing includes names and brief biographic statements of members of the 1989-90 faculty as of April 1, 1989, the title and description of all courses, and requirements for a major or minor in each area. You should pay particular attention to the flexibility provided by our special approaches to study and our special programs, including several nontraditional options such as independent study and research, internships, special majors, study abroad, and other off-campus study opportunities. Cocurricular activities and academic resources are described so that you may understand the contribution they make to the

educational experience. There are many cross references, but if you cannot find a particular program, please refer to the index to see if it is offered under a slightly different name.

The section on Living and Learning on Campus will give you a feel for what campus life is like. In addition to extensive faculty advising and preprofessional counseling programs, there is an endless variety of cultural and artistic programs and extracurricular activities. Opportunities for involvement in student governnment are found here as well as a description of our campus itself.

A complete list of teaching faculty, academic professionals, and other college personnel is found in the Reference Section. Beginning on page 244 is an index, followed by a map of the campus and the surrounding area. A college calendar is included at the end.

Further information on programs and options contained in this catalogue, as well as a viewbook and a campus guide, may be obtained from the Office of Admissions. Several brochures are also available containing more detailed information about specific subjects such as financial aid, transfer admission, preprofessional programs, off-campus study, and individual academic departments. The exact schedule of fall and spring classes is contained in the Master Schedule of Classes booklet published by the registrar's office prior to the beginning of each semester and distributed to students on campus. The booklet may also be consulted in the Office of Admissions. The summer schedule of courses is provided separately in the Summer School Catalogue published each spring.

The living-learning experience that Dickinson makes available to its students is impressive. It is based upon the premise that the students will have the initiative to utilize fully the resources provided by the College's programs, its facilities, and—most important—its people.

Table of Contents

General Information	
Dickinson College, An Overview	9
Admission	12
Financial Information	
Fee Schedules	
Financial Aid	
Financial Aid	
Academic Program	
The Shape of the Curriculum	29
Requirements for the Degree	
Programs and Courses of Study	
Special Approaches to Study	
Independent Study and Research	
Internships	
Special Majors	
Study Abroad	
Special Programs	
Academic Resources	
Academic Policies and Procedures	
Arts and Languages Student Media. Student Activities Recreational Sports and Intercollegiate Athletics. Cultural Affairs Religious Life Academic Advising Career Services Counseling Services Social and Residential Policies	
Residential Services	106
References	190
Directory: Trustees, Faculty, Administration,	
Advisory Councils	
Honors, Awards, and Prizes	
Central Pennsylvania Consortium	
The Campus	
Campus Map	
Index	
How to Get to Dickinson	248
Academic Calendar 1989-90	inside back cover



General Information

Dickinson College: An Overview

The Liberal Arts Tradition

What you first notice about Dickinson College when you step onto the campus are the beautiful old stone buildings and the tall shade trees. What you soon discover, however, is the College's strong liberal arts tradition. For over 200 years students have come to Dickinson for one enduring purpose-to gain a quality liberal arts education. Nurtured by their college experience, Dickinson graduates have gone on to enjoy personally satisfying and professionally useful lives.

At Dickinson, we believe in academic breadth. Every area of study essential to the liberal arts is represented in the curriculum, and through the distribution requirements students explore a wide variety of academic offerings. Two hundred years ago, in the 1780s, the essential fields of study were Latin, geography, and moral philosophy. Now in the 1980s, students may select courses from two mathematical sciences and four laboratory sciences; from eight modern and three classical languages; from philosophy, religion, literature, and four forms of the arts; and from six different social sciences. In addition to these fundamental disciplines, students may also undertake a diverse range of interdisciplinary study.

Dickinson is committed to balance and quality across its curriculum. Students will find, for instance, that both computer science and Russian literature are thriving at Dickinson, that studio art and experimental psychology are equally essential to the strength of our course offerings. It is healthy and natural for a student's interests to change from the freshman to senior year, and Dickinson firmly believes that students should be able to alter their academic focus without lessening the overall quality of their academic program. For this reason, students have access to 30 majors or have the opportunity with their faculty adviser to develop their own major.

The foundation for a good education includes exposure to a full range of basic fields of study and the

ability to study any of these fields in depth. For the first 150 years of Dickinson's existence, however, students did not declare a major; there weren't any. A general course of study was required of all students. Today, studying in a major field has become an important way for students to acquire depth and sophistication in at least one academic discipline. The Dickinson faculty encourages students to develop their powers of imagination and initiative in the search for relationships which link all areas of study. Some students respond by choosing to major in more than one area, by participating in interdisciplinary study programs, or by selecting a number of courses outside their major area of concentration. Through these choices, students begin to recognize how the different disciplines "fit" together. They also begin to realize that the world is not neatly divided into the natural sciences, the humanities, the social sciences, and languages.

In the truest sense, a liberal arts education is more than just the sum of all its parts. It is more than earning a degree by completing studies in a major area and taking courses in a variety of disciplines. At Dickinson, we encourage our students to learn how to learn. so that the limits of their knowledge are always being tested by their willingness to ask fresh questions and to search for more adequate answers. It is this questioning process which is at the heart of the liberal arts experience. The learning process developed through liberal arts studies can serve a student for a lifetime

Some Distinctive Dimensions

The Dickinson curriculum has grown, developed, and evolved over our two centuries of history. Because the traditional academic disciplines have always provided a solid foundation for innovation, four broadly integrative dimensions have emerged to give Dickinson's academic program a distinct character: the international scope of the academic programs, a laboratory/ workshop approach to the natural and mathematical sciences, the cohesive nature of cross-disciplinary studies, and the emphasis on developing basic learning skills.

The first dimension is international education. Technical advances over the last 50 years have made it all but impossible for a country or an individual to remain isolated from world events. At Dickinson, students expand their intellectual horizons by studying a classical or modern language and its culture through at least the intermediate level. They enroll in comparative civilizations courses to extend these horizons bevond the Western world and achieve a global perspective. Students also enhance their cultural awareness by becoming more familiar with their own cultural background. The American studies major and a broad range of courses focusing on the American heritage provide this opportunity for self-understanding. It is appropriate for Dickinson, one of the colonial colleges, to define international education in terms of a dialogue between the study of American culture and a study of the world's cultures.

Students further enrich their understanding of various cultures by participating in a wide range of approved international study programs. One-fourth of our students study in a foreign country for one or two semesters. Dickinson sponsors its own programs in Italy, France, Spain, Germany, Britain, Japan, and the U.S.S.R. The College also actively participates in respected international study programs such as those sponsored by the Institute for European Studies. In addition, a number of majors and certification programs are provided by the College in a variety of cultural-geographic areas. Dickinson graduates the largest number of language majors of any undergraduate private college in Pennsylvania. An enhanced understanding of other people and other cultures is the goal of these programs. The College feels that it is important for students to gain a global awareness so that they may become more effective and aware citizens.

A second distinctive dimension to our academic program is the approach to learning in the natural and mathematical sciences. From beginning courses open to all students through the senior seminar experience, Dickinson students study science in a laboratory/ workshop environment. For example, geology students begin with the geological history of our own valley. Working in the field, they encounter examples of the theories that explain changes in the earth's surface. Workshop Physics students use computers that chart the students' own movements, so that they can observe their own position, velocity, and acceleration. Continued observation and questioning enables them to discover for themselves Newton's laws of motion. Always, the emphasis is upon experimenting with and understanding concepts. Faculty and student research teams are a regular part of the experience for the science major. And students are especially encouraged to develop their writing and communication skills, sharing their findings with one another and the larger community.

Which leads to the third distinctive dimension to our academic program, the way the College seeks to bridge intellectual gaps in our society. Communication skills help to lessen the distance between the sciences and the humanities. At Dickinson, students readily move back and forth between the sciences and humanities. It is not surprising to find students double-majoring in biology and philosophy, English and economics, or music and physics. Most of our professors are themselves liberally educated and so encourage and practice this continual crossing of departmental boundaries.

Ioint scientific and humanistic perspectives also find avenues of expression outside the classroom. The theme of a recent Public Affairs Symposium, "Nuclear Arms: What's The Next Move?" discussed both the scientific bases and social effects of this topic. Dickinson strives to educate people who will be at home in both the laboratory and the arena of public debate, who know the relevant facts, and who have a strong sense of appropriate values. An ideal Dickinson student knows well both Darwin's theories and Shakespeare's tragedies.

Another intellectual gap, the gulf which separates pre-professional preparation from the broadly liberal education needed to become mature adults, is bridged by teaching students to see the connections between study and recreation, between general education and the major field of study. Dickinson believes that the preparations necessary for doctors and business executives, for lawyers and teachers, for journalists and scientists, are all interconnected. We strive to develop a foundation of skills, knowledge, and attitudes in students which will help them become informed and effective human beings.

Liberal arts graduates should be well-rounded individuals who appreciate the varieties of human knowledge and have a range of interests which extend beyond those required for any particular job. This general foundation enables our graduates to change their careers as they mature, to adapt more readily to changes in society, and to take the initiative in shaping such changes.

More than half of our graduates pursue further study. At Dickinson, as many chemistry majors as biology majors go on to medical school. Nearly half of those who study for an M.B.A. come from majors other than economics. Our law school applicants ma-



jor in many different subjects, with history, English, and political science being the most popular.

A fourth distinctive dimension of Dickinson's curriculum is its emphasis on basic learning skills. Dickinson students are expected to write well and to think clearly. Geology reports should be as well-written as English literature papers. A line of reasoning in art history should be as logically reliable as an argument in mathematics or an analysis in anthropology. The College utilizes research papers and essay exams in all three academic divisions of study in order to encourage the development of these skills.

Improvement in other basic skills is also valued at Dickinson. Small classes, including freshman seminars and senior-level seminars, emphasize the skills of good conversation. Students should be able to listen well, to speak effectively, and to be sensitive to the dynamics of a group. Whether they are participants in a sociology class simulation, an informal discussion in a religion course, or a field trip for environmental science, students should acquire the ability to develop ideas in dialogue with others, to contribute creatively to a discussion or line of inquiry, and to know how to bring it to a timely resolution. Events such as Wednes-

day noon student concerts, end-of-semester studio art shows, and dramatic readings at the Arts House also encourage students to gain a sense of social and emotional maturity.

Some of these basic skills are nurtured in specific courses such as introductory language, beginning computer science, logic, or writing seminars. These are then reinforced as an important feature of intermediate and advanced courses throughout the academic program. Other skills are encouraged by cocurricular activities such as the Mermaid Players or the orchestra, choir, and Collegium Musicum. Dickinson's efforts in this regard are richly varied and continuously changing in response to the changing needs of students.

The Learning Environment

Dickinson strives to provide a residential environment in which students can learn and grow on a fulltime basis. The College believes that learning does not cease when a student closes the classroom door; it continues in nonclassroom settings and activities. Dickinson has a longstanding tradition in this regard. It was founded in 1773 as a residential institution. Today nearly all Dickinson students live in one of our 17 residence halls or in one of a cluster of traditional homes and townhouses owned by the College.

Residential facilities are seen as an integral part of the Dickinson learning environment. Informal interactions among roommates and hallmates are opportunities for students to learn more about themselves and about others. Special interest groups such as the language houses or the Arts House provide a direct link between the classroom and the residence hall. In all residence settings, students have the opportunity to learn about citizenship and responsibility by developing housing regulations, determining quiet hours for study, and structuring residence governmental systems. At Dickinson, students are encouraged to develop mature interests, skills, and attitudes. They are held accountable for adult standards of behavior as a vital part of this growth process. Dickinson's goal is a residential environment which complements classroom studies and enhances the development of a student's sense of maturity and responsibility.

The extracurricular and cocurricular activities provided at Dickinson also present students with opportunities for individual development and growth. Students learn the give and take of the political process through submitting funding proposals to the Student Senate for allocations to support clubs or other organizations. Budding journalists learn the pressures of deadlines and the responsibility of being accountable for their work by writing for the Dickinsonian. Students who participate in the debate society refine skills which they can use both in the classroom and in later careers. The prebusiness, prehealth, and prelaw societies enable students to grasp more fully the nature of these professions and to gain insights into how best to prepare for the careers they provide. Beyond the development of specific skills and knowledge, students also learn the general skills of setting priorities and choosing involvements wisely.

Dickinson students are ingenious at devising their own clubs, organizations, and social activities. When 2,000 different individuals begin to interact there are numerous possibilities for creativity. Concerts, films, lectures, fraternities, sororities, dance troupes, and language clubs are only a few of the many activities and groups in which students choose to participate. Drama groups, music ensembles, and sports teams provide students with the opportunity to discover new interests, to develop new skills, and to understand

more fully their individual strengths and weaknesses. Activities at Dickinson are designed to complement classroom studies and not to conflict with them. The College believes that selective involvement in a few of these areas will enhance and reinforce academic studies. The lure of excellence is contagious and it finds expression throughout Dickinson's residential learning environment.

Closing Thoughts

What, then, is the Dickinson educational experience? The ideas and goals expressed by the founders of Dickinson in their design of a College seal and the choice of a College motto provide an appropriate symbol for the education we strive to provide our students. The Dickinson College seal contains three items-a book of scriptures, a telescope, and a liberty cap.

The telescope symbolizes learning. Students who graduate from Dickinson have been introduced to the world's intellectual and cultural heritage, have befriended its great minds, learned its methods of problem solving, become acquainted with its artistic and societal achievements.

The liberty cap symbolizes the ideals of political freedom and responsibility. After graduation students will have the duties of citizenship to bear and opportunities for leadership to realize, challenges for which a Dickinson education should be a useful preparation.

The book of scriptures symbolizes moral commitment and faith. Neither past or future learning nor past or future leadership roles will be worthy of students unless they have acquired a sense of right and wrong and have a mature commitment to high standards of personal and social justice.

The College motto, inscribed within the seal, summarizes these symbols in a phrase: Pietate et doctrina tuta libertas; liberty is made safe by morality and learning.

A Dickinson liberal arts education is thus a beginning rather than an end. Students are encouraged to develop a thirst for lifetime learning which opens them to the riches of human knowledge and prepares them to face new challenges and to welcome now unrealized possibilities. We believe that the educational experiences available at Dickinson provide a solid foundation for the rest of a student's life.

Admission

Freshman and Transfer Students

Colleges are like people; they are all different from each other. No one college is right for every individual and no one person is right for every college. The admissions staff seeks to identify students who will benefit from the educational programs provided at Dickinson and whose goals are in harmony with the aims of a liberal arts education. Aware that students from various social, ethnic, and economic backgrounds contribute to the richness of campus life, Dickinson welcomes applications for admission from a diverse group of persons. The College is looking for students who will contribute to Dickinson and for whom Dickinson is an appropriate college choice.

Professional admissions people, who are sensitive to the character of the Dickinson community and the qualifications and needs of applicants, make the admissions decisions at Dickinson. While computers are useful for research and the storage of data, they have no place in determining who is finally selected. People make decisions about people at Dickinson. We seek to understand each applicant as a unique person with individual characteristics, background, interests, talents, needs, goals, and preparation for college. There is no automatic formula that guarantees admission to Dickinson although all accepted candidates must be well-qualified. Each person's application for admission and credentials are read a minimum of three times by the admissions staff before a final decision is made. This is done in order to assure fairness both to the applicant and to the College. Everything that a student chooses to submit to us or which we require for consideration is reviewed carefully.

Admission to Dickinson is highly competitive. Dickinson students are intelligent, well-prepared, and personable. Many factors are considered both individually and as a whole in the admissions process in order to gain a comprehensive impression of the applicant's personal and academic qualifications for Dickinson. The primary credentials are (1) the secondary school academic record, (2) SAT or ACT scores, (3) the official recommendation of one's secondary school guidance counselor, college adviser, headmaster, or princi-

pal, (4) the application form itself, including the essay, and (5) extracurricular activities.

The secondary school record is important. We look at grades, the quality of courses taken in order to achieve those grades, the class rank and how it is computed (is the student given recognition for taking the tougher courses offered by his or her school?), and the quality of the school from which the student is applying. Dickinson admissions representatives visit over 600 secondary schools throughout the United States each year in order to gain a more comprehensive appreciation of each school and its people. In predicting academic success in college, we believe that there is no substitute for high grades earned in solid courses from a good secondary school. Such academic performance measures not only academic preparation for college but also the student's motivation, study habits, selfdiscipline, and desire to learn.

SATs and other standardized test scores are a strong factor, although definitely not the only factor, in the admissions process. We think that the SATs generally are effective in measuring aptitude, but they do not measure motivation to learn, personal character, or citizenship qualities, all of which are also important factors in our admissions decisions.

Official recommendations from the applicant's secondary school are prominent in the selection procedures. Additional letters of recommendation also are considered in our review process although they are not required.

Dickinson seeks to create a sense of community in which the students are active participants. The admissions staff has a responsibility to admit students who will make positive contributions to that community. We seek people who have demonstrated their willingness to participate in school, family, or community activities. We look for students who have made a commitment to something for which they have had to assume responsibility and from which they have grown. What is important is not the number of activities with which an applicant has been involved but rather the quality of participation in them.

As a liberal arts college, Dickinson is committed to breadth as well as depth of quality in its curriculum. We believe that a student should have the opportunity to explore different aspects of the curriculum before declaring a major. We do not expect our applicants, as seniors in high school, to know precisely what they want to major in or what they plan to do with the rest of their lives. Learning how to make such choices



wisely is what Dickinson's four-year liberal arts education is all about.

Because colleges are different from each other, we believe that it is very important for prospective students to visit Dickinson in order to acquire an impression of what our philosophy of education, sense of community, and people are like. A personal interview is seen as an opportunity for the prospective student to gain information about the Dickinson community and insight into it. Rarely is the interview used as a screening device in the selection process.

The policy of the College is to enroll a freshman class by selecting the most qualified candidates in its applicant pool. Dickinson College does not discriminate against applicants on the basis of race, religion, sex, color, handicap, or national or ethnic origin.

Dickinson College is a member of the National Association of College Admission Counselors and subscribes to its Statement of Principles of Good Practice.

Freshman Admission Requirements

A completed application form, including the secondary school report form to be completed by the

guidance counselor, college adviser, headmaster, or principal, must be sent to the admissions office by the appropriate deadline (see chart on page 17). A non-refundable \$25 application fee is required at the time the application is submitted.

The Minimum Requirement for Entrance is the satisfactory completion of a secondary school program of at least 16 units, including four units of English, two (preferably three) units of one foreign language, three units of natural science, two units of social science, and three units of college preparatory mathematics. The remaining units should be within these academic areas. Most applicants offer more than the minimal requirements.

Standardized Test Requirements

The Scholastic Aptitude Test (SAT) or the American College Test (ACT) is required of all applicants. Results of either test taken in the junior year must be submitted for early decision. All admissions candidates taking either test in their senior year should take them in October, November, December, or no later than January.

College Board Achievement Tests. Achievement test scores are not required for admission to Dickinson. If students wish to satisfy a prerequisite requirement or place into a higher level course (such as foreign language), they should plan to take an achievement test or Advanced Placement Test in the appropriate area. On the basis of this testing, the student will then be placed at the appropriate course level. Those students interested in majoring in the sciences or in math are encouraged to take either the Math Level I or Math Level II College Board Achievement Test in addition to other appropriate achievement tests.

Achievement test scores submitted prior to the evaluation of a person's application may support the application in cases where strong achievement potential is suggested, but in no case will these test results adversely affect the final decision on the application. For these reasons many students may wish to take selected College Board Achievement Tests.

Applications and schedules for these examinations may be obtained by writing to the College Entrance Examination Board, P.O. Box 592, Princeton, NJ 08540.

Foreign Student Admission

Dickinson College encourages those foreign students to apply for admission who have successfully completed their secondary school requirements and whose knowledge of the English language (as indicated by their score on the TOEFL examination—the Test of English as a Foreign Language) is of sufficient quality to demonstrate capability in pursuing a collegiate program. Most accepted foreign students have a minimum score of 600 on the TOEFL.

The College maintains a small foreign student financial aid budget to assist foreign students who wish to study as four-year degree candidates. In most cases, if a prospective student and his/her family are not able to cover the full costs of attending Dickinson, we must discourage the person's application.

Dickinson also utilizes the limited foreign student financial aid budget to assist those students who will be studying at the College as one-year non-degree guest students. Most one-year non-degree guest students apply to Dickinson through agencies such as the Institute of International Education (IIE).

Advanced Credit

Advanced Placement Program A student who achieves a score of 4 or 5 on a College Board Advanced Placement Test will be granted credit for college work in the appropriate department and will receive placement at the discretion of the department.

A student who achieves a score of 3 on the Advanced Placement Test may receive, at the discretion of the appropriate department, credit and/or placement. Credit granted in accordance with the above statements of policy will satisfy the corresponding graduation or distribution requirements. In addition, such course credit will normally satisfy a prerequisite requirement in that department for advanced work.

International Baccalaureate Diploma Course Credit Students who have received the International Baccalaureate diploma will be granted general college credit for up to two higher level IB courses in which they achieve grades of 5 or better. Placement and credit in the appropriate departments will be granted at the discretion of the departments.

Credit granted in accordance with the above statements of policy will satisfy the corresponding graduation or distribution requirements. In addition, such course credit will normally serve as the prerequisite to advanced work in the department.

Interview

A visit to the campus for an interview or information session is helpful to prospective students in gaining a clearer understanding of life and study at Dickin-

Personal interviews may be scheduled with an admissions staff representative between 9:00 a.m. and 3:15 p.m. Monday through Friday from April through December.

During January, personal interviews may be scheduled on each Monday, Wednesday, or Friday, and in February on each Monday or Friday. During March, personal interviews can be given only on Friday.

Students are welcome to attend group information sessions which are conducted by professional staff members on Saturday at 10:30 a.m., September through April, and on Monday, Wednesday, and Friday at 1:30 p.m., September through April. The admissions office is closed for some legal holidays and college vacations.

Please arrive no later than 15 minutes before the scheduled start of the group information session so that the session may begin promptly.

All appointments should be made well in advance of a planned visit by writing the admissions office or calling 717-245-1231.

Early Decision Plans I and II

The College actively encourages early decision applications from students for whom Dickinson is clearly their first-choice college.

In recognition of the differing calendars of decision-making on the part of prospective students, Dickinson offers two early decision plans. Under EDP I, the more traditional timetable, students who apply by December 15 will be informed of our decision by January 1. EDP II enables students who decide mid-year that Dickinson is their first choice to file early decision applications between December 15 and February 1 and then to hear by February 15. More details will be found on the chart on page 17.

Early decision is a service to realistic candidates be-

- 1. Preference in the admissions process is given to early decision candidates if they are qualified.
- The candidates learn early in their college planning if they have been admitted to the college of their choice.
- All applicants not accepted under either plan will be reconsidered automatically on an equal basis with the regular applicants for admission and ultimately may be accepted for admission.
- 4. Dickinson has a strong record of meeting the full need of well over 95 percent of all accepted candidates who demonstrate financial need. All accepted early decision candidates are *guaranteed* financial aid in the amount of their demonstrated financial need. (See page 28 and the financial aid brochure for filing information.)

In addition to fulfilling the regular requirements for admission, early decision candidates *must* submit the Early Decision Agreement Form which is enclosed with the application packet.

The obligation of the accepted early decision candidate to Dickinson is to withdraw all other college applications and to submit the \$200 nonrefundable registration fee which is applied to the first semester tuition charges.

Early decision candidates seeking financial assistance should correspond directly with either the Office of Admissions or the Office of Financial Aid prior to December 10 for EDP I to obtain the necessary special early version of the Financial Aid Form of the College Scholarship Service. (See page 28.)

Early Admission

Any student applying to Dickinson who has accelerated academically in order to leave or graduate from a secondary school in less than the traditional four-year time sequence (grades 9-12) is considered to be an early admission candidate. An individual interview is required of all students applying in this category. Applications for early admission will be reviewed on an individual basis taking into consideration maturity and readiness to participate in a residential college as well as academic ability. An early admission applicant must have the written recommendation and approval of the secondary school counselor.

Deferred Admission

Some accepted students may wish to defer the start of their college experience until they have pursued an alternate activity for a year or two. A written request which explains why the student wishes to defer admission and also which describes the alternate activity is required. Normally, experiences which enhance a student's educational background such as overseas travel, work, or study are approved. All deferral requests are reviewed by the admissions staff on an individual basis.

Common Application Plan

Dickinson College, along with a select number of colleges in the United States, participates in the Common Application Plan by which it is possible for a student to fill out one application form which will be used by the colleges subscribing to the plan. The Common Application Form may be submitted in lieu of the regular Dickinson application form and will be treated in the same way as the Dickinson form. For further information regarding the Common Application Plan, prospective applicants are advised to check with their guidance counselors.

Transfer Admission Requirements

Dickinson College welcomes qualified applicants with previous academic work at other accredited college-level institutions. An applicant normally will be considered for transfer admission if the person has been enrolled elsewhere as a degree candidate for the equivalent of at least two semesters prior to the term of desired enrollment at Dickinson.

The primary factors in the admission of transfers, in addition to those required of freshman applicants, are the college transcript, the reasons for transfer, and evidence of good character as shown by the Dean's Report Form (enclosed with the application form).

Previous academic work which has been satisfactorily completed with a grade of C or better (2.00 or above on a 4.0 scale) in a program of study that reasonably parallels the curriculum of Dickinson College will be evaluated for credit. Normally, the course requirements for graduation (34 courses) will be reduced proportionately for every academic year of fulltime study at other accredited institutions. Part-time course work, summer study, and unusual circumstances will be evaluated on an individual basis.

Admission Category	Application Deadline	Admissions Decision Notification	Registration Fee Deadline
		FALL SEMEST	ER
Freshman, Early Decision Plan I	December 15	Between December and January 1	1 By Jan. 15 or within 10 days after notification of financial aid status if the accepted student is a financial aid candidate
Freshman, Early Decision Plan II	February 1 (but not before Dec. 15)	Between January 15 and February 15	By March 1 or within 10 days after notification of financial aid status if the accepted candidate is a financial aid candidate
Freshman, Regular Decision	March 1	Between March 15 and March 30	The Candidates Reply Date of May 1
Transfer	June 1	Rolling notification as applications are completed	By May 1 if notification of acceptance is prior to April 20. After April 20, the registrations fee deadline is ten days after acceptance. Accepted students who are financial aid applicants must submit the \$200 fee by May 1 or within 10 days of the financial aid notification if such notification is after April 20.
		SPRING SEMES	TER
Transfer	December 1	By January 1	Within 10 days of date of notification of admission or within 10 days after notification of financial aid status if the accepted student is a financial aid candidate.

Dickinson College

Final determination of credit and the satisfaction of distribution and language requirements will be made by the registrar. Among the academic regulations applicable to all students and of particular note to transfer applicants is the graduation requirement that at least 17 courses be taken on campus, the last 12 of which must be taken while the student is matriculated with an approved major field of concentration.

Registration Fee

In order to assure his or her enrollment at Dickinson College, an accepted candidate is required to submit a non-refundable \$200 registration fee by the appropriate deadline. (See chart on page 17.) The registration fee is applied automatically toward the first semester tuition charges.

Alumni Admissions Program

The Alumni Admissions Program of Dickinson College is composed of a group of alumni who are interested in providing a service to the students, parents, and schools of their home areas. The Alumni Admissions Program committees are most willing to provide accurate, up-to-date information about the College to all persons interested in learning more about the academic, cultural, extracurricular, and social programs available at Dickinson.

If you desire further and more specific information about the College, please feel free to contact the Alumni Admissions Program committee representative living in your home area. Please note that the information listed below is correct as of April 1, 1989. If you have trouble contacting our representatives, please call the Admissions Office (717) 245-1231 for assistance.

Arizona

Phoenix
Joseph T. Clees, Esq. '81
1630 W. Vernon Avenue
Phoenix, AZ 85007
H. (602) 495-9029
O. (602) 229-5205

California

Los Angeles Mrs. Paulette G. Katzenbach '68 153 S. Rockingham Avenue Los Angeles, CA 90049 H. (213) 395-8073

San Diego Sarah Dantzer '85 2125 Westinghouse, #118 San Diego, CA 92111 H. (619) 279-4604 O. (619) 457-2274

San Francisco
Janet Hroncich '85
2071-A Plymouth Street
Mountain View, CA 94043
H. (415) 962-9029
O. (415) 852-6012

Colorado

Denver Carolyn Kidd '87 295 Zang Street, #2942 Lakewood, CO 80228 H. (303) 987-8649

Connecticut

Hartford
John A. Bierly, DMD '66
25 Borough Drive
West Hartford, CT 06117
H. (203) 521-8718 O. (203) 658-5552

Southern Connecticut
Gregory S.C. Chann, DMD '77
Crossways, No. 11
300 Danbury Road
Wilton, CT 06897
H. (203) 762-9545
O. (203) 762-8405

Delaware

Southern Delaware
Laura and Jack Morris '76 & '74
941 Nassau Road
Lewes, DE 19958
H. (302) 645-5281
O. (302) 736-2438 (hers)
O. (302) 645-9431 (his)

Wilmington
Alison Whitmer Tumas, Esq. '81
148 Moorfield Turn
Hockessin, DE 19707
O. (302) 571-6646

District of Columbia

Vienna, Virginia
Beth Masters '81
9959 Longford Court
Vienna, VA 22181
H. (703) 255-0896
O. (202) 694-8620

Florida

Tampa
Lew and Sharon Sibert '72
2606 Regal Oaks Avenue
Lutz, FL 33549
H. (813) 972-1252
O. (813) 971-8520 (hers)

Georgia

Atlanta Leonard Hymes, MD '72 2040 Ridgewood Drive, NE Atlanta, GA 30322 H. (404) 934-5975 O. (404) 329-5750

Louisiana

New Orleans
Betsy Strachan '82
7003 Jeanette Street
New Orleans, LA 70118-5511
H. (504) 861-0037
O. (504) 582-4969

Maine

Portland
Lisa-Anne French '83
7 Northwood Drive
Portland, ME 04103
O. (207) 865-4761 x 3043

Maryland

Baltimore
Gregory and Robin Zimmerman '83
2 Montaigne Court, 1B
Pikesville, MD 21208
H. (301) 486-8177
O. (301) 528-4176 (hers)

Frederick
Lori J. Edwards '81
1743 Hillmeade Square
Frederick, MD 21701
H. (301) 663-6253
O. (301) 670-2064

Massachusetts

Boston
Mark Granger, Esq. '71
64 Hastings Street
West Roxbury, MA 02132
H. (617) 327-8333
O. (617) 439-7518

Springfield
James Tackett '79
40 Briarcliff Drive
Westfield, MA 01085
H. (413) 572-3762
O. (413) 568-9111

Minnesota

Minneapolis Kyle Stewart Evans '78 3834 Washburn Avenue, North Minneapolis, MN 55412 H. (612) 522-8226

Missouri

St. Louis
Harika F. Savci '84
11712 Westham Drive
St. Louis, MO 63131
H. (314) 567-6458

New Hampshire

Pamela W. Latimer '83 25 Erik Street Merrimack, NH 03054 H. (603) 882-9906 O. (603) 884-4467

New Jersey

Atlantic, Cape May, and Cumberland Counties
Patricia Miller Gable '65
18 Schoolhouse Lane
Bridgeton, NJ 08302
H. (609) 455-3456
O. (609) 451-9400

Central
Tracy W. Wisniewski '82
206 Lillian Avenue
Hamilton Township, NJ 08611
H. (609) 888-0315
O. (609) 393-2222 x 112

Northern Mark and Harriet Lehman '71 & '72 645 Shadowlawn Drive Westfield, NJ 07090

H. (201) 232-3216 O. (201) 292-6237 (his)

Southern

Samuel Asbell, Esq. '66 Camden County Prosecutor's Office Parkade Building 518 Market Street Camden, NJ 08101 O. (609) 757-8400

New Mexico

Albuquerque
Nicholas and Nancy Volpicelli '63 & '65
7527 La Madera Road
NE Albuquerque, NM 87109
H. (505) 822-0152

New York

Albany Susan L. Dague '81 8 Indian Maiden Pass Box 103 Altmont, NY 12009 H. (518) 861-8341 O. (518) 869-6379

Long Island
Ann M. Boehmeke '85
20 East Shore Road
Huntington, NY 11743
O. (516) 935-3700 x 267

New York City John D. Ryan III '86 1205 Lexington Avenue, Apt. 2C New York, NY 10028 O. (212) 326-4745 Rochester
Beth Gottlieb '80
Sheridan Park, Apt. 191
15 Reed Road
Geneva, NY 14456
H. (315) 781-0131
O. (315) 789-5500 x 435

Utica

Rev. Robert J. Thomas '40 248 Gordon Avenue, P.O. Box 57 Sherrill, NY 13461-0057 H. (315) 363-5193 O. (315) 599-8842

Westchester/Rockland Counties Richard A. Leins '71 Greene, Leins & Ryan, Esqs. Barclays Bank Building 13 Croton Aveunue Ossining, NY 10562 O. (914) 941-5500

North Carolina

Phyllis Golden Andrews '75 22 Oak Drive Durham, NC 27707 H. (919) 493-8544

Ohio

Cincinnati
Robert C. Reichley '82
479 Wood Duck Drive
Cincinnati, OH 45246
H. (513) 671-3936
O. (513) 352-5017

Cleveland Jan Kucinski Matz '81 3145E Lost Nation Road Willoughby, OH 44094 H. (216) 953-4616

Oregon

Salem
Robert M. Schiff '68
4797 Constitution Avenue, SE
Salem, OR 97302
H. (503) 363-7851
O. (503) 371-7703

20 Admission 1989-90 Catalogue

Pennsylvania

Central
Michelle Shank '84
149 N. College Street
Carlisle, PA 17013
H. (717) 249-6200
O. (717) 245-6569

Stacia Strouss '88 221 East Louther Street Carlisle, PA 17013 H. (717) 243-6487

Johnstown
Robert Yoder '87
435 Devon Drive
Johnstown, PA 15904
H. (814) 269-3511

Lancaster
Wendy Losey Basehoar '76
736 State Street
Lancaster, PA 17603
H. (717) 291-9360
O. (717) 626-4721 x 231

Lehigh Valley
Ellen & David Wolff '82 & '83
354 Valley Park South
Bethlehem, PA 18018
H. (215) 691-6173
O. (215) 258-9181 (his)
O. (215) 250-3462 (hers)

Philadelphia
Robert T. Symington '86
1806 Green Street, Apt. 104
Philadelphia, PA 19130
H. (215) 988-0477
O. (215) 629-3665

Pittsburgh Ronald Waetzman '71 5525 Bartlett Street Pittsburgh, PA 15217 H. (412) 422-5525 O. (412) 578-6900 Reading
Camille F. Stock '82
18 Woodland Manor Drive
R.D. #2
Mohnton, PA 19540
H. (215) 775-0616
O. (215) 320-4000

Sunbury
Thomas E. Boop, Esq. '71
c/o Rice, Boop & Storaska
106 Market Street, P.O. Box 470
Sunbury, PA 17801

H. (717) 286-7382 O. (717) 286-6701

Wilkes-Barre/Scranton Charles R. Coslett, Esq. '74 312 Wyoming Avenue Kingston, PA 18704 H. (717) 675-4260 O. (717) 288-4517

Rhode Island

Providence
Suzanne Fish Costa '83
11 Fireside Drive
Barrington, RI 02806
H. (401) 245-8134

Texas

Dallas-Fort Worth
Sandy Quittman Walker '74
4422 Shady Hill Drive
Dallas, TX 75229
H. (214) 350-1205

Houston
A. Wright Gibson '71 2807 Greenbriar
Houston, TX 77098
H. (713) 522-3453
O. (713) 556-4761

Virginia

Charlottesville
Barbara S. Steinberg '82
110 Ivy Drive, Apt. 8
Charlottesville, VA 22901
H. (804) 977-3658

Richmond
Jane Buchen Abbott '67
16 Willway Avenue
Richmond, VA 23226
H. (804) 355-5211
O. (804) 282-3185

Wyoming

Casper
Mary Beth Wright Peden '71
1808 S. Chestnut Street
Casper, WY 82601
H. (307) 235-3566
O. (307) 577-4400

Minority Recruitment and Retention

As an institution of higher education, Dickinson College recognizes that breadth and depth in the pursuit of learning is enhanced by diversity within the student body, faculty, and administration. The quality of an education depends not only on the subject matter taught and the quality of the teaching, but also on the people with whom students share their learning experiences. Regular dialogue among students, teachers, and administrators, crucial to the teaching-learning process, is enhanced by diversity in a campus population. The more heterogeneous the participants, the wider is the range of ideas and perspectives.

The presence of racial and ethnic minorities within a campus population makes possible a particularly significant kind of diversity. Students, faculty, and administrative staff who represent these minority groups enable the college community to experience the racial and ethnic characteristics of the society in which graduates of Dickinson will live and work. The minority presence helps all students better understand the problems and rewards of living with diverse groups. Familiarity with and increased sensitivity toward the cultural heritage, viewpoints, and values of diverse groups in society encourages a reassessment of personal viewpoints and values.

The College, therefore, is strongly committed to recruiting minority students and to appointing minority persons to faculty and administrative positions. A Commission on the Status of Minorities, appointed by the president of the College, is one way in which visible form is given to this college commitment. Other ways are through active recruitment efforts by the Of-

fice of Admissions and by the academic and administrative departments of the College. Such recruitment is supported by the development of an academic, cultural, and social environment that encourages the retention of minority persons and that ensures the highest probability that minority students will complete their education at Dickinson.

Statement on Physical and Learning Disabilities

The secondary school student with a physical or learning disability who is thinking about applying to Dickinson College has a right and responsibility to know how far the facilities and the curriculum of the College have been or might be adapted to his/her individual needs. In this statement on physical and learning disabilities, Dickinson accepts the definition of learning disabilities in Public Law 94-142 as "a disorder in one or more of the basic processes involved in understanding or using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations." Although it is conceivable that complications in acceptance for a major at Dickinson might occur for a student with a particular disability, the much greater likelihood of concern over the College's distribution requirements makes this statement address that problem more directly. The prospective student who is unswervingly sure of his/her college major (and it should be remembered that this student is distinctly in the minority in any group of incoming freshmen) is welcome to discuss individual problems with departmental representatives, either before or after application. Since the distribution requirements of the College are traditionally met first and most generally by freshmen and sophomores, this statement will deal chiefly with them.

The distribution requirements at Dickinson define general education as something varied and individualized, as opposed, for example, to core requirements. Distribution requirements insist on breadth but not on conformity. Dickinson admission standards reflect this philosophy: the College is looking for individuals with a variety of talents in balance (verbal, mathematical, analytical); and, equally important, a balance of personal characteristics (trustworthiness, sense of direction, sociability, will to learn). This quest for balance is going, inevitably, to attract persons with different emphases and profiles, exactly as the College



would have it. Dickinson's experience, as well as national studies, have shown that persons with disabilities in one area often, even commonly, develop strengths in other areas that make them outstanding in any community. With this in mind, the College will consider an application from any prospective student with a disability who has succeeded in secondary school to the degree that makes him/her comparable to other candidates for Dickinson admission. Any applicant who chooses to register his/her individual disability may be assured that he/she will be judged exactly as any other applicant: with the same view toward establishing a profile of the student's skills and needs and of maintaining a varied profile among the student body.

Learning disabilities are met on an individual basis at Dickinson. The timing of examinations and papers has been adapted by instructors for certified cases of dyslexia and dysgraphia. On the other hand, no student should expect exemption from the College distribution requirements on the basis of disability. The choices within the system obviate the need for exceptions. In foreign languages entirely different skills are required for the classical and modern languages; also,

the laboratory sciences depend on a a wide range of mathematical requirements, while nonlaboratory sciences do not require manual skills; the Department of Physical Education offers a panoply of activities, both vigorous and mild. For all students individualized counseling, academic and personal, is available from the day of arrival on the campus through graduation. Dickinson operates on a sincere belief that careful choice within its system is better for any student than exemption, however convenient momentarily the exemption might be for both the student and the College. It is well that this should be understood by all applicants for admission to the College.

Dickinson's colonial heritage and the resulting age of some historical buildings do not militate so much as they might against the accommodation of students with physical disabilities. The eighties have been a time for renovation for many of the older buildings of the campus, all of it done with an eye toward the College's responsibilities toward the disabled. No course in the humanities or the social sciences is without a section accessible to any disabled student. So far as facilities and curriculum allow, the sciences adapt to individual needs. Administrative offices make every reasonable effort to accommodate their services to individual students with physical disabilities. The campus visit recommended for all prospective students is especially urged for any student with a physical disability. College officials will be glad to discuss with any prospective student, either before or after his/her acceptance for admission, exactly how far the College's facilities are adapted or adaptable to specific disabilities.

Any student of the College may refer problems to the Associate Dean of Educational Services; such cases are then referred to the designated Coordinator for Disabled Student Services or appropriate office.

Dickinson Guest Student Program

Dickinson College welcomes qualified applicants who wish to study on a full-time, nondegree status for either one or two successive terms "in absentia" from their present colleges. This program is specifically designed for those students who wish to participate in the high-quality academic and cocurricular life of a small college community.

Application deadlines are December 15 for spring term admission consideration and August 1 for fall

term admission consideration. Applicants are notified of the admission decisions on their applications on a rolling admissions basis as the applications become complete. A \$200 non-refundable deposit is required from accepted applicants and is applied toward the first semester tuition. For further details regarding the Guest Student Program, please write to the dean of admissions at Dickinson College.

Continuing Education

The Office of Continuing Education serves adults in the community who wish to take advantage of the many activities at the College that will enrich their lives and further their education, both within the regular course work and through other events and special programs. Adults interested in regular study at the College on a part-time basis should apply through this office. Normally, students in continuing education will have been away from the formal education process for a year. Registration for these students is limited to two courses in the regular curriculum each semester.

Adults may enroll in regular classes either on a credit or audit basis. Auditors attend class, read the assignments, but submit no written work, do not take examinations and receive no academic credit. They are not seeking a degree and may continue in the program indefinitely.

Adults planning to matriculate and to earn a Dickinson degree are encouraged to begin their college career in the continuing education track. They may take four courses at a special lowered tuition rate before their academic record is evaluated to determine their eligibility for regular admission. If they are admitted to degree status, they may continue to work on a parttime basis if they so desire.

Inquiries about study through continuing education should be made by writing the associate dean for academic programs or calling 717-245-1392.

High School Enrichment Program

Upon the recommendation of their high school guidance counselors, promising high school students may elect to augment their high school program by enrolling in up to two courses per semester at Dickinson. Information about course offerings and assistance is provided by the Office of Academic Affairs.

The Consortium Exchange Program

Dickinson, Franklin and Marshall, and Gettysburg form the Central Pennsylvania Consortium. (See Special Programs, page 171.)

Readmission

Any formerly matriculated student who wishes to re-enroll must file an application for readmission. Such applications should be filed with the registrar prior to March 15 for the fall semester, and prior to November 1 for the spring semester. A student who was required to withdraw should consult page 179.

A student who is absent from the College at least three years, and who is readmitted and successfully completes the equivalent of at least two semesters of work on campus, may petition the College Committee on Academic Standards to have course credits toward graduation and cumulative grade averages based only on work accomplished after the second matriculation. "Successful completion" will mean the attainment of at least a 2.0 average, or a higher probationary average, as stipulated by the committee.

Changes in Nondegree Student Status

A nondegree student who desires full-time status must have the approval of the dean of admissions, who may seek the advice of the Committee on Admissions and Financial Aid in certain circumstances. Approval may be for a semester or a year and is renewable.

A nondegree student who desires to become a degree candidate must receive the approval of the Committee on Admissions and Financial Aid. In seeking such approval, the student must submit all transfer credit he or she plans to apply toward the Dickinson degree. In general, a student must meet all the requirements for graduation in effect at the time of acceptance, including being accepted as a major by some department prior to completing 22 courses. Failure to be accepted as a major means required withdrawal from the College without the privilege of readmission. In addition, a student must meet the same requirement as a transfer student, i.e., the student must complete 17 courses on campus, the last 12 of which must be taken while the student is matriculated with an approved major field of concentration.

Financial Information

Expenses

The costs of an education are of concern to students, their families, and to colleges. Dickinson has been pleased to hold the charge made to a studenttuition, room, board and fees-about one-third below the actual expense of that student's education. Each student pays approximately two-thirds of the real cost of an education at Dickinson because the College has sought effectively to obtain funding from other, outside sources. Gifts, grants, alumni contributions, bequests, and income from summer conferences help Dickinson to reduce the costs of education for every student.

Additionally, financial aid is available to many. The College is aggressive in seeking financial aid for those who have valid needs. Financial aid comes from endowment and other college sources and from outside agencies. Further, because certain federal and state programs are broadly available, it is recommended that all prospective students and their families read the section dealing with financial aid.

Fee Structure

All basic expenses due to Dickinson fall into three categories: tuition, a resident fee, and a Student Senate fee. Other expenses, such as private music tuition or automobile registration, must be paid in addition. Books and supplies are also additional.

The tuition fee applies to students enrolled in three or more courses per semester; students enrolled in fewer than three courses are billed on a course basis.

The resident fee includes room and board.

The Student Senate fee supports a wide range of social and cultural activities administered by student officers elected by the student body.

A registration deposit is required each semester.

Payment Procedures and Regulations

Registration Deposit A registration deposit will be charged prior to each semester to reserve enrollment in college classes and assignment of dormitory space. This deposit of \$300 per semester is credited toward the semester charges and is nonrefundable after the due date announced by the College if a student's registration is cancelled.

Making Payment An itemized statement of fees and charges is mailed approximately six weeks prior to the beginning of each semester. Payment is due and must be paid in full 10 days prior to attendance at class each semester. Accounts not settled by the due date could result in delayed registration and will be subject to a late payment charge of one and one-half percent per month on the amount unpaid.

Payment Plans Persons wishing planned payments should consider the option of the Mellon Bank Educheck Plan, the Tuition Plan, Inc., Richard Knight Tuition Payment Plan, the Academic Management Services plan, or the insured low interest federal loan program for parents called Parent Loans for Undergraduate Students (PLUS). Information on the first four plans is available from the Dickinson business office. Information on PLUS is available from the college financial aid office or your bank. Applications for these plans must be completed six weeks before the school year begins to assure having funds available for use for the fall semester.

The Pennsylvania Higher Education Assistance Agency (PHEAA) Higher Education Loan Plan (HELP) offers the maximum benefits of state and federal student aid loan programs through a convenient single application process. PHEAA-HELP combines two loan possibilities: the non-subsidized Stafford Loan (formerly GSL) and the PHEAA Alternative Loan. Families may borrow up to \$10,000 per year at low costs through PHEAA-HELP.

Available to Pennsylvania residents and out-of-state residents attending Dickinson and other Pennsylvania colleges, the PHEAA-HELP loans should be investigated thoroughly before any other financing system is activated.

Full information is available at the following address: PHEAA-HELP, 660 Boas Street, Harrisburg, PA 17102-1398, or call 1-800-692-7392.

The Dickinson College Flexible Financing System is available to help families develop manageable monthly payment amounts and to extend payments over more than the four years of a child's educational career at Dickinson. The basic component of the system is an educational services installment payment plan called the 2500 Plan which provides as much as \$2500 per year to parents of Dickinson students. Attractive features are the low interest rate and a requirement of repaying only the interest on the outstanding principal while the student is at Dickinson.

The 7000 Plan permits parents to extend payments for as much as \$7000 per year (\$28,000 maximum) over as many as 13 years, with an interest rate established each year at one point above the prime rate. Particularly in the larger program offered by the College, flexibility is stressed. Families may contract for the precise amounts they need, at the times help is needed, throughout a child's career at Dickinson.

Additional information about the Flexible Financing System is available from the director of financial aid.

Outside Agency Support Students attending college under a provision with a State Board of Assistance or other agency must supply complete information to the business and financial aid offices.

Refunds of Charges in Case of Withdrawal Rules governing refunds are on file in the business office. Refunds on charges:

Tuition

Room Board Ur	None nused days of board
Over five weeks	None
Between four weeks and five w	eeks 20%
Between three weeks and four	weeks 25%
Between two weeks and three v	weeks 60%
Two weeks or less	80%

No reduction will be allowed for absence of students withdrawn for unsatisfactory conduct or scholarship.

The trustees reserve the right at any time to amend or add to the regulations of the College, including those concerning fees and methods of payment, and to make such changes applicable to students presently enrolled, as well as to new students.

Full-time Students	Per Semester	Per Year
(Taking 3 or More Courses)		
Comprehensive Fee	\$6,650.00	\$13,300.00
Room	1,060.00	2,120.00
Board	940.00	1,880.00

Part-time students	
(1 or 2 courses per semester)	
Per course charge, non-matriculant	\$1,700.00
Per course charge, matriculant	2,150.00
+ Student Senate Activities Fee,	
per course for matriculants	20.00
Audit charge, per course	850.00
Continuing Education, per course	670.00
Continuing Education Audit,	
per course	255.00

Other Fees					
Application (incoming students)	\$ 25				
Applied Music: 1 hour/week for					
semester	520				
1/2 hour/week for					
semester	260				
Late Payment Charge: 11/2% per month					
on amount unpaid					
5-day luncheon plan, per semester	350/360				
ROTC Activities Fee, per year 30					
Transcript Records: one time fee					
for incoming students	25				

Financial Aid

Dickinson is aggressive in seeking ways to help families and students manage the costs of education. The College's endowment includes specially earmarked funds for financial assistance; some general endowment funds are also set aside for this purpose. Each year, federal and state funds are made available for assignment by the College behalf of students. In some cases, gifts and grants from corporations and foundations provide help. Also, in some instances families find that employers and other near-to-home sources can provide assistance.

The decision to award financial aid is based solely upon need; the College does not offer "incentive scholarships" designed specially to attract students who do not need financial aid. A "package" of financial aid is assembled for each recipient, and may include direct grants, loans, or on-campus work opportunities. It is interesting to note:

-fully 43 percent of last year's full-time students received grants from Dickinson's own endowment.

-60 percent of last year's students received some form of financial aid from all sources combined.

The table below is reprinted from Dickinson's brochure on financial aid.

Application for financial aid is uncomplicated: parents simply submit the Financial Aid Form of the College Scholarship Service of the College Board, and designate Dickinson as an information recipient. This form is available in secondary school guidance offices and college financial aid offices. Pennsylvania residents should also complete the PHEAA grant application form, also available through high school guidance offices and college financial aid offices throughout the Commonwealth. In other states, these same sources can provide state-specific forms and data, or contact Dickinson's financial aid office. The CSS and state agencies will then send data directly to Dickinson; these data constitute a financial aid application.

Forms of Financial Aid

A financial aid recipient may be granted one or more forms of assistance. Students receiving grants are usually also given loans and campus employment as part of their "package." For more details, read the financial aid brochure.

Grants Grants (outright gifts) of funds may be made from the College's own endowment, from state or Federal sources, or from outside agency funds.

Campus employment Most students receiving assistance are offered campus employment of up to 12 hours of work a week in exchange for wages which help reduce expenses. Campus jobs are granted using

FINANCIAL AID FOR ADMITTED STUDENTS: CLASS OF 1992

Family Income	Number of Admitted Applicants Who Applied For Aid*	Number Determined To Have Need	Number Offered Aid	% of Needy Students Offered Aid	Total Aid Available to Meet Need	Average Total Award	Range of Total Award	Average Grant Award
\$ 0-\$ 9,999	23	22	22	100	\$ 307,991	\$14,000	\$3,575-\$16,920	\$10,455
10,000- 19,999	54	52	52	100	677,345	13,026	3,105- 16,740	9,397
20,000- 29,999	85	77	77	100	972,631	12,632	4,515- 16,570	9,045
30,000- 39,999	96	84	84	100	931,885	11,094	3,475- 14,895	7,589
40,000- 49,999	134	110	110	100	1,002,589	9,114	2,375- 15,075	5,781
50,000- 59,999	116	82	82	100	578,394	7,054	1,325- 13,625	3,990
60,000- 69,999	137	72	72	100	462,016	6,417	1,850- 12,725	3,473
70,000- 79,999	72	22	22	100	146,240	6,647	1,920- 9,965	3,109
80,000 and Above	94	10	10	100	52,145	5,215	2,825- 6,345	2,300
TOTALS	811	531	531	100	\$5,131,236**	\$ 9,663	\$1,325-\$16,920	\$ 6,322

^{*}Only the applications completed and processed by June 1, 1988 are included for computation of these statistics.

^{**}Total aid offered, \$5,131,236, was composed of grants amounting to \$3,357,150; self-help in the form of loans totaling \$1,328,586; and earning capacity in the. form of part-time campus employment totaling \$445,500.

funds from the federal College Work-Study Program: a much smaller number are provided from Dickinson's own funds

Loans Low interest loans to students and to parents are now available fairly readily. Two federal programs, Perkins Loans (formerly National Direct Student Loans) and Stafford Loans (formerly Guaranteed Student Loans) are able to make loans to the student; repayment does not begin until after the student finishes attending school.

Financing Systems More and more families are looking to an array of financing systems to help make college costs more manageable by arranging for yearround, monthly payments and by extending college costs over more than the four years of the typical collegiate career. Additional information about financing systems is available from the financial aid office.

Summer employment Students are normally expected to obtain summer jobs and to apply those earnings toward the costs of education.

FINANCIAL AID **CALENDAR CONSIDERATIONS**

Suggested application filing dates and subsequent award notification schedules are outlined below for applicants interested in the several admissions modes:

ADMISSIONS CATEGORY	FAF FILING SCHEDULE	NOTIFICATION SCHEDULE FOR ACCEPTED STUDENTS	ACCEPTED STUDENT RESPONSE SCHEDULE
Regular	File FAF (obtain form from guidance counselor) after January 1 but before February 15	tance is mailed from admis-	Pay deposit of \$200 to reserve place in class by May 1
Early Decision Plan I	of FAF (obtained by re-	soon after Special Early Version material is received	Pay deposit by January 15 or within 10 days of tentative award notification
Early Decision Plan II	File regular FAF soon after Jan. 1 but before February 15	Official awards sent soon after FAF material is received	Pay deposit by March 1 or within 10 days after award notification
Transfers	File regular FAF by June 1 for fall semester admission or by Nov. 15 for spring	Official awards sent soon after FAF material is received and acceptance letter is mailed from admissions	within 10 days of financial

Note: Financial aid information above applies only to U.S. citizens and/or permanent residents.

Academic Program

The Shape of the Curriculum

he Dickinson College baccalaureate degree is the result of a four-year educational journey. The landscape comprising that experience is what all Dickinsonians have in common, although each one of them travels through it along a distinctive pathway. Students need constantly to make specific and individual choices regarding courses, programs, and activities as they move through college, and so they each fashion a way uniquely their own. Yet they do so in aspiration with others, within a community of shared intellectual inquiry. This mutual journeying, not the separate roads chosen, is what is most important.

Students may elect either of two broad approaches to the curriculum: the Bachelor of Arts or the Bachelor of Science. General graduation requirements are the same in either case, but only students with a concentration in one of the natural or mathematical sciences may be a candidate for the Bachelor of Science.

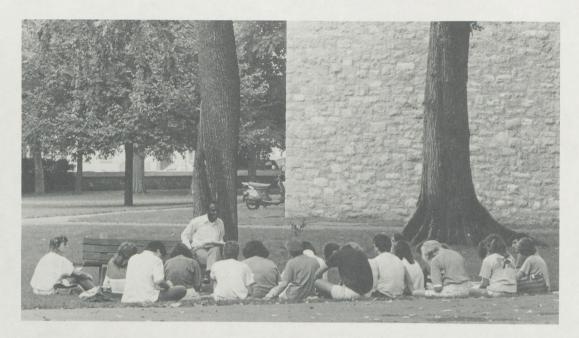
Whatever Dickinson students finally decide to emphasize, they begin by exploring in a general way the full breadth of liberal learning as it is represented in the three fundamental branches of the academic curriculum. The humanities share a common interest in the meaning of human experience. They help us interpret ourselves and our world through artistic and conceptual self-expression, through critical reflection, and through a heightened sensitivity to the nuances of the human spirit. The social sciences seek to describe, analyze, and interpret the ways by which persons interact within the societies they have created. They assist us in seeing the complex conditions which historically and currently have defined the possibilities for both human failure and achievement, for conflict, and for reconciliation. The natural and mathematical sciences are linked by their goal of understanding the character and the interdependencies of the natural order. They allow us to discern basic structures and regularities in the universe, to trace the past development of planet earth and its living creatures, and to anticipate future changes.

Every educated citizen should be reasonably familiar with these three basic kinds of learning, but everyone should also study in some depth at least one disciplined approach to knowledge. Dickinson students, therefore, develop a concentration in a major. The arts and literatures provide 12 such concentrations within the humanities; in the social sciences there are six concentrations; the natural and mathematical sciences provide six as well. These 24 disciplinary majors represent the basic academic disciplines that outline the liberal arts. They are complemented by seven interdisciplinary majors and two interdisciplinary certification programs.

Courses are offered in two semesters, each comprising 14 weeks of classes plus a brief reading period followed by final examinations. The fall semester begins in early September and concludes prior to Christmas and Hanukkah. Students have a reading period of a few days after the end of classes in which to take stock of their work for the semester and prepare for the final examinations and papers which are scheduled at special times during the subsequent week. Spring semester begins near the end of January and runs through mid-May, following the same pattern. A summer term is also available for those who prefer the smaller classes and quieter pace it provides. During the summer, students usually take two courses at a time in either of two six-week sessions.

Students usually enroll in four courses at a time, although they frequently take five. Normally a course meets three times a week for 50 minutes or twice a week for 75 minutes; some upperclass seminars meet just once during the week for two and a half hours. Laboratories and field trips are scheduled in single afternoon time blocks. This variety in the weekly schedule provides classtimes suited to differing teaching methods and to the requirements of specific subjects. For example, brief but frequent meetings are often the best way to learn information, practice a skill, or discuss a series of related issues. Sometimes extended workshop sessions serve well the rhythms of a course that requires room to develop an idea or explore a problem or acquire a technique.

Freshman seminars, all foreign language classes, courses on writing, and most upperclass seminars have class enrollments of no more than 15 students. A typical introductory course enrolls 35 students, most intermediate-level courses have 25 to 30 students, and 300-level courses are usually no larger than 20 or 25. Although some introductory science course lectures



enroll classes of 50 to 100 students, the accompanying laboratories for these courses are conducted in sections of 12 to 40. Advanced science classes and labs are usually under 25. Independent studies and tutorial opportunities, internships, and honors provide students with a range of occasions for one-to-one teaching and learning. Maximum class sizes are established in order to provide students with adequate opportunities to interact with their professors and with other students. As a result, students do not always gain access to their first choice of courses during a given registration period, and some majors are more difficult than others to initiate. Consistent with the College's insistence on overall balance, however, every effort is made to anticipate such problems and when necessary to open new course sections.

Professors evaluate student achievement by the traditional means of written comments on papers and exams as well as by assigning letter grades. They are also available to students for individual conferences, to answer questions or discuss complaints, and just to talk further about some important matter raised in class.

In all but the first semester, a student may enroll in one course on a pass/fail basis as one way to venture into new intellectual fields. A very few courses, and all internships, are taught on a mastery (credit/no credit) basis only.

In the middle of each semester a "roll call" is taken in each course, and indications of whether or not students' work is satisfactory at that point in the semester are reported to the students and their advisers. In this way, academic problems may be identified while they can still be resolved.

At the end of every term, final grades are reported to students by means of a grade report that also summarizes other information relevant to their progress toward graduation.

Almost all of Dickinson's students have enrolled in college immediately after finishing high school; 83 percent of them subsequently graduate from Dickinson. Some transfer to other colleges, some accelerate, and some take longer than four years to earn their degree. A few students transfer each year to Dickinson from elsewhere. A small but highly motivated sprinkling of adults enroll in courses in order to complete a much-delayed baccalaureate or simply to enjoy afresh the challenges of liberal education. In 1988 Dickinson graduated 453 students. Since its founding 215 years ago, 18,219 graduates have walked down the stone steps of Old West to receive a Dickinson baccalaureate and to commence their roles as adults and citizens in a changing world.

Requirements for the Degree

he following guidelines assist students in developing programs of study which introduce them to the special nature of inquiry in each of the three major divisions of learning—the humanities, the social sciences, and the natural and mathematical sciences-and which ensure their growth in a knowledge of other cultures, of the place of physical activity in their lives, and of studying one area of the curriculum in depth.

Students must meet the following general requirements. Except for courses they will apply to the major or minor, students may not use any course to meet simultaneously more than one general requirement. All students must pass 34 courses with a cumulative average of 2.0. A student must complete a minimum of 17 courses on campus. Twelve courses must be completed on campus after the student has matriculated and has an approved field of concentration. The last four courses or six of the last eight courses immediately preceding graduation must be taken on campus. Students must satisfactorily complete courses which fulfill the requirements for distribution, crosscultural studies, physical education, and the field of concentration.

1. Freshman seminars One of the courses each entering freshman must take during the fall semester is a seminar which addresses particular problems or topics growing out of the liberal arts curriculum and often drawing from more than one disciplinary perspective. These seminars serve to introduce freshmen to the intellectual life of the College by encouraging them to participate actively in small group discussions and by setting standards for their writing and research which will enable them to become full members of the academic community.

2. Distribution courses

Division I Humanities (3 courses) Students

must select one course from each of the following three groups:

- a. One course in philosophy or religion; or Environmental Studies 111, Humanities 120 or Humanities 220.
- b. One literature course in Chinese, English, French, German, Greek, Italian, Japanese, Latin, Russian, Spanish.
- c. One course from the following: history of art or classical archaeology; art, history, or theory of music; or Dramatic Arts 101, 102, 103, or 104.

Division II Social Sciences (3 courses) Students should select three courses, each from a different area or department within the social sciences. Those areas or departments are American studies, anthropology, economics, education, history, classical history, political science, psychology, and sociology.

Division III Natural and Mathematical Sciences (3 courses) Two of the three courses to be selected must be a two-semester laboratory sequence in one of the following departments: biology, chemistry, environmental science, geology, or physicsastronomy. The third course must be chosen from a department in this division different from the two-course laboratory sequence and may be either another laboratory course, a non-laboratory course, or a course in mathematics, contemporary science, or history of science.

3. Cross-cultural studies To prepare students to be effective members of the interdependent world, the College requires the study of a foreign language through the intermediate level and the election of one course in comparative civilizations. The language study often complements work in other disciplines. The comparative civilization courses seek to deepen students' understanding of the diversity in cultures by introducing them to traditions other than those that have shaped or influenced the modern West.

Languages All students are required to demonstrate that they have completed work in a foreign language through the intermediate level. If the student's native tongue is not English, he or she may be excused from this requirement by the dean of the College who will give written notification to the student, to the registrar, and to the student's adviser.

If the student has studied a language for two or more years in a secondary school, the student may be excused from the language requirement on the basis of a sufficiently high score on the College Board Achievement Test in the language, with the permission of the appropriate language department.

Students beginning a language at Dickinson must satisfactorily complete the 102 or 104 level course before receiving credit for the 101 course. A student who is qualified by placement for enrollment at any given level, but who is unable to work effectively at that level, may (at any time within the first 30 calendar days of the semester) with the concurrence of the instructor and adviser drop back one level without penalty.

Dickinson language departments also offer language immersion programs for students completing their general language requirement. These programs allow students to augment their required foreign language study by spending a month in a country in which that language is spoken. Students will be expected to depend almost entirely upon the foreign language as their means of communication in order to increase their language proficiency and their motivation to use the language further. Immersion programs are offered in French, German, Italian, Russian, Classical Studies, and Spanish.

Students who have fulfilled the language requirement may then receive credit for a single semester of the elementary level of another language.

Comparative Civilizations Students must select one course in the comparative study of civilizations. Each semester such courses are listed in the preregistration booklet.

4. Physical education activities Satisfactory completion of three semesters (six units) of physical education is required. Transfer students with junior standing with no physical education credit need to take only two semesters (four units) of physical education. This requirement may also be met by one year of active military service. Six months of active military service may be counted in satisfaction of two of the three semesters of physical education.

Every student must complete the physical education requirement unless excused in writing by the dean of the College. Students are expected to have completed the physical education requirement by the end of the first semester of their senior year. Refer to physical education section of the course descriptions.

5. Concentration Students should select a field of concentration from among those departments offering major fields of study (see The Shape of the Curriculum, page 29) or should, by working with a faculty committee, design their own major field of study (see Special Majors, page 164). The major consists of nine or 10 courses of academic work in the discipline. In addition to these courses the department may, with the concurrence of the Committee on Academic Program, prescribe additional courses in related fields.

The major field of concentration is normally selected during the spring of the student's sophomore year. The departments determine the student's acceptance as a major upon the basis of stated criteria. The department assigns the accepted student to an adviser, using the student's preference as one of the bases for assignment. A student who is not accepted for a major field of concentration during the semester in which the 22nd course will be completed will be required to withdraw from the College.

The student may also elect a minor field of study which usually consists of six courses of academic work specified by the department offering the minor. If a student completes a minor in one or more fields of concentration, this fact will be noted on the permanent record.

If a student intends to major in more than one department, approval must be secured from each department. This student must develop a program in consultation with both departments, and therefore must be advised jointly by a member from each department and must secure approval of both advisers. The same course may be counted for more than one major except for courses under the self-developed major program.

Students who wish at any time to change a major must be accepted by the new department in accordance with normal procedures for declaring a major.

The Nisbet Scholars Program

The Nisbet Program provides some students with the opportunity to participate in the design of their own liberal arts program of study. Students interested



in the process of studying the history and nature of the liberal arts and in joining with a seminar group of 12 students to discuss each member's application of this study in the development of his or her educational experience at Dickinson should apply to this program. Invitations to the program will be distributed to students in the fall of their first year. Selections will be made on the basis of recommendations by the freshman seminar faculty, by interviews with Nisbet faculty and by the student's written application to the program. No more than 48 students will be accepted into the program from any entering class.

During the second semester of the freshman year, Nisbet students participate in a seminar which explores the evolution of the present idea of the liberal arts. This study forms the basis for each student's development of his or her own educational plan. Although Nisbet students are excused from normal College distribution requirements, they undertake special responsibilities: they must submit a written account of their evolving educational program to members of their Nisbet seminar at least once a semester and must include in this plan a program of at least six courses which balances a major field of concentration either in breadth (should their major be disciplinary) or in depth (should their major be interdisciplinary); they must participate in a non-credit seminar in their sophomore year which addresses the special opportunities

and problems of the liberal arts student; they must arrive at a commonly agreed upon topic for an interdisciplinary seminar in the senior year with other members of their group; and they may pursue an independent research project which grows out of the senior seminar and for which they may receive honors in the Nisbet Program.

The graduation requirements for students in the Nisbet Program are the completion of all the requirements of the program noted above and the completion of 34 courses including the freshman and senior Nisbet seminars with a cumulative average of 2.0. Nisbets must also meet the College residency requirements.

The Nisbet Program was named in honor of Charles A. Nisbet, the first president of Dickinson College. Nisbet was persuaded by Benjamin Rush to come to Carlisle in 1783 to assume the leadership of a small college founded on the frontier to educate a nation's youth in literature, science, and moral philosophy. He sought to liberate their minds so that they might be prepared to assume the leadership of a fledgling nation. In a similar fashion, today's Nisbet students are encouraged to use their college education to enable them to attain personal ideals and social responsibility.

The program will not be available during the 1989-90 academic year.

Programs and Courses of Study

Boldface type indicates that a major is offered.

American Studies

Anthropology

Archaeology

Astronomy

Biology

Chemistry

Chinese

Classical Studies

Comparative Civilizations

Computer Science

Dramatic Arts

East Asian Studies

Economics

Education

English

Environmental Studies

Financial and Business Analysis

Fine Arts

French and Italian

Geology

German

Greek

Hebrew

History

Humanities

Interdisciplinary Studies

International Studies

Italian

Italian Studies

Japanese

Iudaic Studies

Latin

Latin American Studies

Library Resources

Mathematics

Mathematics and Computer Science

Military Science

Music

Philosophy

Physical Education

Physics and Astronomy

Policy and Management Studies

Political Science

Portuguese

Psychology

Public Speaking

Religion

Russian

Russian and Soviet Area Studies

Science

Sociology

Spanish and Portuguese

Courses of Instruction

hen two course numbers, followed by a single description, are separated by a comma, either course may be taken without the other, although the two are normally taken together as a one-year course.

When two course numbers, followed by a single description, are separated by a comma, and preceded by an asterisk, the first course may be taken without the second, although the two are nomally taken together as a one-year course. The first course, however, is a prerequisite for the second.

When two course numbers, followed by a single description, are separated by a hyphen, the work of the two semesters constitutes an integral, indivisible one-year course. Students who pass the first semester receive a grade of S. When the second semester is successfully completed, the grade is recorded and credit is given for both courses. Those students who fail the first semester receive F and may not take the second semester course.

American Studies

revolt against the rigidity of traditional academic disciplines gave birth to the American Studies Movement in the 1930s. Since that time, scholars have been developing new techniques for the investigation of America, past and present. Americanists have examined their complex society from a variety of perspectives, employing a rich blend of theories on society, culture, and sociocultural change. The discipline recognizes that the pluralistic nature of American society and the complexity of contemporary problems demand an understanding of social institutions and cultural values. Such an understanding may be pursued through self-critical analysis, through examinations of particular social systems and subcultures, and through cross-cultural analysis.

In cooperation with participating departments, the American Studies Program at Dickinson seeks to provide an innovative and coherent approach to the study of American culture. American studies students are expected to develop a broad comprehension of the American experience, to think systematically about the nature of cultural analysis, and to analyze a topic of their choice from different disciplinary perspectives. Each American studies student develops a unique program of study which is given coherence through the core courses and through careful planning and advising concerning the student's thematic concentration. Many students take advantage of offcampus programs like the Washington Semester and Dickinson's international programs which provide opportunities for students to develop comparative cultural perspectives.

Students usually decide to major or minor in American studies during or after taking American Studies 201. All interested students are urged to take introductory-level work in history, English, anthropology, and sociology during freshman year. Nonmajors can receive social science distribution credit for American Studies 201 and may be admitted to the advanced courses by permission of the instructor.

American studies graduates have found jobs in social service areas, publishing, journalism, urban planning, teaching, government, counseling, business, and law. Others have gone on to graduate education in a variety of fields including American studies, historic preservation, history, law, religion, urban planning, business, and journalism. All have left Dickinson with an informed and critical understanding of the society of which they are a part.

Faculty:

Lonna M. Malmsheimer, Professor of American Studies, Director. Ph.D., University of Minnesota. Her research interests are interdisciplinary methods, Three Mile Island, the Carlisle Indian School, and photographs as documents.

Sharon O'Brien, Professor of English and American Studies. Ph.D., Harvard University. Her teaching specialty is American Literature of the 19th and 20th centuries. Research interests include women writers, popular culture, feminist theory, and the relationship between literature and society.

American studies courses are also offered by other faculty members from cooperating disciplines.

American Studies Advisory Committee:

George Allan, Part-time Professor of Philosophy Bruce R. Andrews, Professor of Political Science Kenneth M. Rosen, Professor of English Charles A. Barone, Associate Professor of Economics Charles A. Jarvis, Associate Professor of History Noel Potter, Jr., Professor of Geology Robert P. Winston, Associate Professor of English Daniel K. Richter, Assistant Professor of History Kim L. Rogers, Assistant Professor of History Susan Rose, Assistant Professor of Sociology

Courses:

201. **Introduction to American Studies** The culture concept and techniques of cultural analysis applied to selective aspects of the American experience. Through readings, lectures, discussions, and field



work, students explore the significance of a variety of social documents including novels, buildings, films, oral testimony, historical and sociological studies, social criticism, and the artifacts of material culture.

301. Topics in American Studies Selected topics in American studies at the intermediate level. Topics offered will vary from year to year, reflecting the interests of faculty and students as well as evolving concerns of the field, e.g. Mass Media and American Culture, Gender in America, Popular Culture, Native American Cultures, 1890s America, War and American Culture, etc. Prerequisite: American Studies 201 or permission of the instructor.

401. Research and Methods In American Studies An integrative seminar focusing on the achievements and problems of interdisciplinary study. Students examine the current literature of American studies, discuss relevant philosophic questions and, in research projects, apply techniques of interdisciplinary study to a problem related to thematic concentration. Prerequisite: American studies major, minor, or permission of the instructor.

402. Seminar in American Studies: Selected **Topics** Topics chosen annually on the basis of student interest and scholarly concerns in the field. Such topics, explored through reading, discussion, field work, and research, include: Technology and America; Autobiography and American Culture; The Twenties; Social Criticism in America; Literature as History; Male and Female in America; Metaphors of American Experience; Film and Society; Myths, Fiction, and American Life; America Through Foreign Eves; The American Artist and Society: Studies in Material Culture; The Transcendental Aesthetic. Students should refer to the class schedule for the topic being offered in any given semester. Prerequisite: permission of the instructor.

Major:

Ten courses including

Requirement I

Core courses in American Studies 201, 401, 402.

Requirement II

One survey course in both American literature and American history and one course from sociology or anthropology which emphasizes theories of culture and comparative cultural analysis or conceptions of social structure and sociological theory.

- a. One semester course in American history chosen from the following: 281, Recent U.S. History; 247, American Colonial History; 249, American Intellectual and Social History; 250, American Intellectual and Social History. Other courses may be substituted by permission of the program director.
- b. One semester course in American literature chosen from the following: 323, Topics in American Literature; 382, The American Renaissance 1830-1888; 384, American Poetry; 385, American Short Story; 386, American Novel; 388, American Drama; 409, Seminar in American Literature. Other courses may be substituted by permission of the program director.
- c. One semester course in sociology or anthropology chosen from the following: Sociology 220, Community Studies; Sociology 340, Social Change and Social Movements; Sociology 341, Class and Culture; Anthropology 333, Theory and Method. Other courses may be substituted by permission of the program director.

Requirement III

Thematic concentration. American Studies 301 and at least three courses from relevant disciplines, with no more than two of these three to be taken in one department. Courses for the thematic concentration are to be chosen in close consultation with the director to illuminate a topic of the student's choice. Although each topic will dictate a different selection of courses, not all of which must have an American emphasis, the American Studies Program has approved the following list of American context courses offered by other departments and programs. These courses represent a partial listing of the many courses of special interest to American studies majors offered at Dickinson.

Anthropology. 214, Ecological Anthropology; 334, Economic Anthropology; 335, Urban Anthropology; 336, Social Organization.

Economics. 100, Contemporary Economics; 214, A Contemporary Economic Issue; 222, Environmental Economics; 344, Public Finance; 347, Money and Banking; 350, Industrial Organization and Public Policy; 371, Topics in Economic History.

English. 323, Topics in American Literature; 382, The American Renaissance, 1830-1888; 384, Ameri-

can Poetry; 385, The American Short Story; 386, American Novel; 388, American Drama; 409, Seminar in American Literature.

Environmental Science. 131, 132, Environmental Science.

Environmental Studies. 111, Environment, Culture, and Values; 222, Environmental Economics.

Fine Arts. 204, American Art; 314, 20th Century Art.

History. 288, American History in the Civil War Period; 311, Studies in American History; 387, American Constitutional History; 392, Cities and Ethnicity in America; 394, Family in America; 402, Seminar in American History.

Music. 108, American Jazz.

Philosophy. 245, Philosophy in the United States; 385, Theories of History.

Political Science. 140, The City; 205, American Political Thought; 241, Black Experience; 244, Public Opinion and Propaganda; 245, Political Parties and Interest Groups; 246, Legislative Process; 247, American Presidency; 290, Selected Topics in Political Science.

Religion. 116, Jews and Judaism in the United States.

Sociology. 220, Community Studies; 222, The Family Phenomenon; 223, Deviant Behavior and Social Control; 224, Comparative Race and Group Relations; 225, Urban Life.

The American studies list will be updated each year to include new course offerings. "Selected Topics" courses open to majors in other fields, with permission of the program director, will be credited towards the American studies major when they are judged pertinent to Requirement III in each student's program.

Note: All courses credited toward the major must be taken for a letter grade unless they are not offered on this basis.

Minor:

American Studies 201, 301, 401, and a thematic concentration consisting of three related courses from the disciplines, not more than two of which may be from a single discipline. See description of thematic concentration above.

Anthropology

nthropology seeks to understand the cultural, Asocial and biological dimensions of human populations. For example, people who study secret cults in the Amazon Basin, or dig up Pleistocene skeletons, or train mothers to treat infant malnutrition, all call themselves anthropologists.

Cultural anthropologists spend a long period of fieldwork getting to know one culture well, paying particular attention to how the people themselves see their world. The cultural anthropologist may focus on one aspect of the culture, but always with an eye on how the total system works. These in-depth studies, in some cases, become the basis for generalizations about humankind derived from comparisons with other cul-

Biological anthropologists focus on anatomy, ethology, population genetics, nutrition, or human evolution. Archeologists reconstruct past cultures through excavation and sophisticated dating techniques.

The anthropology curriculum provides students with a comparative perspective to appreciate human diversity and the complexity of contemporary problems. Our majors go on to work in social services, education, business, and many other fields here and abroad. Some of our graduates earn higher degrees in archeology, cultural anthropology, law, medicine, public health, and academic administration.

Faculty:

William W. Vernon, Professor of Geology and Anthropology. M.S. (Anthropology), University of Pennsylvania. His major research activities and field experience have focused on the archaeology of early man in North America, particularly in the eastern United States. His current research interests are centered on the evolution of prehistoric technology, especially the development of ceramic and metal industries in S.E. Asia.

Kjell I. Enge, Assistant Professor of Anthropology. Chairman. Ph.D., Boston University. Areas of specialization include ecological anthropology, comparative medical systems, political economy, field methods, statistical analysis, and the application of anthropology to human problems. He has done research and teaching in Costa Rica, Guatemala, Mexico and Peru; currently he is providing technical assistance on primary health care to the Agency for International Development and the government of Guatemala.

Ann M. Hill, Assistant Professor of Anthropology. Ph.D., University of Illinois. Areas of specialization are: economic anthropology, kinship, ethnic relations, complex societies, and the relation of language to culture. She has done fieldwork in Northern Thailand and studied in the People's Republic of China. Current research focuses on trade and ethnic politics in southwestern China.

Kristen S. Borré, Instructor in Anthropology. M.A., University of North Carolina. Among her many interests are included human ecology, evolutionary theory, nutritional assessment of human populations, the effect of dietary changes on human health, socioeconomic aspects of food production and distribution, and ritual aspects of food production and diet. Integrating formal ecological and cognitive folk models, her current research on North Baffin Island Inuit focuses on diet, hunting, and economy.

Courses:

100. Introduction to Biological Anthropology The history of evolutionary thought will be explored in relationship to Western European ideas about human origins. Neo-Darwinian evolutionary theory will guide the overview of human evolution, primate behavior, human genetics, human growth and development, and human nutrition and health.

101. An Introduction to Cultural Anthropology A cross-cultural perspective on the human experience. Institutions such as the family, law, religion, and warfare examined using examples from contemporary non-Western, non-industrialized societies. A brief overview of major schools of thought and the practice and ethics of anthropological research.

210. Language and Culture This course examines the relationship of language to culture and society. It



includes the study of sociolinguistics, language acquisition, cognition and descriptive linguistics. The student is introduced to major perspectives on language from Whorf, Hymes, de Saussure, and Levi-Strauss.

212. **Applied Anthropology** Sociocultural change, development, and modernization in both Western society and the Third World are examined in terms of theory and practice. Emphasis is on the planning, administration, and evaluation of development projects in agriculture, energy, education, health, and nutrition. The increasingly important role of professional anthropologists and anthropological data is examined in the context of government policies and international business.

214. **Ecological Anthropology** An examination of human adaption to changing environments with an emphasis on systems analysis. Special attention on development and current environmental problems. *This course is cross-listed as Environmental Studies 214*.

215. Anthropology of Political and Legal Systems A comparative examination of conflict resolution and social control in non-Western societies. Legal systems, broadly defined, are seen as a cultural universal; societies in diverse ecological settings and at various levels of social and political complexity are com-

pared to illustrate the relationships between law and other aspects of culture. Legal systems in egalitarian and stratified societies are compared, with special emphasis on the legal complexities of plural societies.

216. **Medical Anthropology** Comparative analysis of health, illness and nutrition within environmental and socio-cultural contexts. Evolution and geographical distribution of disease, how different societies have learned to cope with illness, and the ways traditional and modern medical systems interact.

217. Cross-Cultural Perspectives on Gender Use of comparative method to understand variations in the patterning and content of gender roles and status across cultures. Although focused primarily on non-Western cultures, the course will also examine gender among U.S. ethnic groups. Emphasis is on placing gender roles and status in the broad, holistic context of interrelations among cultural ideologies, social institutions, and material conditions. Offered every other year.

218. Biosocial Aspects of Female Sexuality Female sexuality and the experience of human birth will be discussed in an evolutionary framework. Pregnancy, lactation, parturition, mother-child bonding, needs of the neonate and roles of other family mem-

Dickinson College Anthropology 39

bers will be considered in the transition from woman to mother. Psychosocial dimensions of the birthing experience will be considered cross-culturally. *Offered every other year*.

- 220. **Fundamentals of Archaeology** Methods and techniques of modern archaeology as a subdiscipline of anthropology. A survey of culture process through time with special emphasis on North American aboriginal societies. Ecological reconstruction of human life ways. Field trips to local sites.
- 221. **Archaeology of Latin America** An archaeological and ethnological reconstruction of the rise of civilization in Mesoamerica and South America from the early hunters to the high cultures of Aztec, Maya, and Inca. Cultural consequences of the Spanish Conquest. *Offered every other year*.
- 222. **Contemporary Peoples of Latin America** An examination of the life of present-day primitive and peasant peoples of Middle and South America. These societies are seen holistically, and as they relate to urban and state centers. *Offered every other year*.
- 229. **Principles of Human Variation and Adaptation** The biological basis of human variation through genetic adaptation will be explored. Race as a social and biological concept will be examined critically. Basic demographic principles will be applied to the observation of variation in human populations.
- 230. **Archaeology of Ancient China** Prehistoric origins of Chinese civilization as revealed by archaeology. The development of technology, social organization, language, art, and belief systems up to the time of Confucius.
- 231. Chinese Civilization An introduction to Chinese civilization beginning with the foundation of imperial China. Enduring Chinese institutions and modes of thought and expression are viewed in the broad context of traditional China. A brief consideration of modern China is included by way of contrast. Offered every other year.
- 232. Anthropology of Contemporary Chinese Society A study of contemporary Chinese populations in the light of traditional culture and social life. An examination of the profound changes in Chinese

lives under socialism in the People's Republic of China. Focuses on changes in family, community organization, and belief systems. Offered every other year.

- 240. Ethnographic Methods Focusing on ethnographic field methodologies, this course will be introducing students to the techniques of participant observation, structured and informal interviewing, oral histories, map making, sociometrics, and content analysis. Students will design their own field projects, taking into account the wide range of issues involved in conducting social science research. *Prerequisite: at least one course in either American studies, anthropology, or sociology.*
- 295. **Archaeological Field Studies** Application of the fundamentals of excavation and the analysis of artifactual materials from the excavation of a site in the Carlisle area. Sites will be located within daily commuting distance of the college. *Prerequisite: permission of the instructor. Offered in summer school only.*
- 316. Nutritional Anthropology Human dietary behavior will be examined in an evolutionary context. Food acquisition, processing, and distribution will be discussed in relationship to environmental adaptations. The relationship of dietary decision making to human health and use of the environment will be studied at the individual and social level of analysis. Nutritional anthropology methods including analysis of growth and development and clinical techniques of nutritional assessment will be studied through laboratory exercises. Prerequisites: Anthropology 100 or Anthropology 216 or Biology 111. Offered every other year.
- 331. **Principles of Human Evolution** The hominid species has lived as foragers and scavengers for over 95 percent of its evolutionary history. Human anatomy, physiology, and behavior coevolved with foraging behaviors in diverse environments which permitted world colonization by the species. This seminar will address special topics in hominid evolutionary ecology such as the nature of the foraging adaptation, origins of agriculture, and evolution of the human diet, language, and social organization. *Prerequisites: Anthropology 100, 216, 218, or 229 or Biology 111, 112.*
- 332. **Anthropology of Religion** A cross-cultural survey of the functions role of religion, magic, and myth in simple and complex societies. Religion and commu-

40 Anthropology 1989-90 Catalogue

nication. Myth and social structure. A historical summary of the scientific study of religion. *Prerequisite:* another anthropology course or permission of the instructor. Offered every other year.

333. Quantitative Data Analysis This course introduces students to the theory and methods of social science research, beginning with an examination of the philosophies underlying various research methodologies. It then focuses on quantitative data analysis. Students will learn how to design, code, and analyze interviews and surveys. Selected data bases and statistical programs will be used to analyze current social issues, and compare samples. Prerequisites: 101 or two other anthropology courses or multiple courses in either American studies or sociology.

334. Economic Anthropology An anthropological approach to economic production and exchange. Focus on non-Western societies where production and distribution of goods are institutionalized within political, religious, and kin groups. Place of markets in societies cross-culturally. Strategies of economic development and their consequences for rural poverty. Prerequisite: 101 or other courses in the Departments of Anthropology and/or Economics. Economics 100 recommended.

335. **Urban Anthropology** Urban sociocultural structure in terms of demography, class divisions, participation in the formal wage economy and the informal entrepreneurial sector. Dynamics of urbanization in the Third World and the increasing gap between the rich and poor. Government policy and legislation regarding resource allocation between rural and urban areas. *Prerequisite: 101 or any 200-level course; also courses in American studies. To be offered every other year.*

336. **Social Organization** The webs of kinship in tribal, traditional, and modern societies examined in relation to production, exchange, politics, law, and ideology. Effect of rapid social change on kin groups, families, and non-kin organizations; adaptation to new ecological, economic, and political realities. *Prerequisite: 101 or any 200-level course.*

337. **Ethnology of Mesoamerica** An examination of anthropological studies of indigenous people of southern Mexico and Guatemala. Emphasis will be on

the process of change and relations with Western society from the Spanish Conquest to the present. Both classic and more recent ethnographic sources will be used. *Prerequisite: 101 and a 200-level anthropology course. To be offered every other year.*

340. **Prehistoric Cultures of North America** The course focuses on the cultural history and evolution of selected societies north of Mexico before European contact. Technological, sociological, and ideological aspects are considered from reconstructions based on archaeological evidence. *Prerequisite: 220 or permission of instructor.*

390. Anthropology Seminar A specialized seminar investigating the contributions of various anthropological approaches to the understanding of cultural processes. Representative topics are: Applied Anthropology; Creationism vs. Evolution; Comparative Medical Systems; Prehistory of North America. Prerequisite: Permission of the instructor or anthropology major.

394. Field School in Cultural Anthropology Field study for five-six weeks in selected location of Latin America or Spain. Analysis of social, economic, and environmental systems using participant observation, interview protocols, and other appropriate methodologies. In cooperation with Latin American studies. *Prerequisite: 101, 211, or permission of the instructor. Offered in summer school only.*

Major:

Nine courses including 100, 101, 331 or 336, 333, 390 and four additional courses, two of which may be either Classical Studies 121, 122, 123, or 124.

Minor:

Six courses, including 100 and 101 and four additional anthropology courses. Students who are interested in a minor should consult with the department.

Astronomy

See Physics and Astronomy

Archaeology

his program allows students to add a minor in archaeology to their major in a related field, such as anthropology, chemistry, fine arts, geology, Greek, history, or Latin. Archaeology itself is not a major, but an interdisciplinary program which allows students to complement their major with a study of human culture from an archaeological point of view. Being interdisciplinary in nature, the archaeology minor requires students to take courses in more than one department, principally anthropology and classical studies. Five courses form the core of the minor, required of all students in the program:

Anthropology 101: Introduction to Cultural Anthropology

Anthropology 220: Fundamentals of Archaeology Classical Studies 122 OR 123: Mycenaen & Minoan

> Archaeology OR Intro. Etruscan Archaeology

Classical Studies 121 OR 124: Intro. Greek

Archaeology OR Intro. Roman Archaeology

One course in excavation fieldwork or museum internship

Two other courses in archaeology, or related studies, are required for completion of the minor; these may be chosen according to the student's interests, needs, and background. These two elective courses may be chosen from the following:

Anthropology 100: Intro. to Biological Anthropology Anthropology 214: Ecological Anthropology

Anthropology 221: Archaeology of Latin America

Anthropology 230: Archaeology of Ancient China

Anthropology 331: Principles of Human Evolution

Anthropology 340: Prehistoric Cultures of North America

Classical Studies 122/123, 121/124 (whichever two courses were not elected for the core requirement)

Fine Arts 202: Ancient Art Anthropology 502/Classical Studies 502: Independent Studies in Archaeology

Other courses not listed above, but which might relate to archaeology (e.g., specialized work in geology or chemistry) will be considered on an individual basis for satisfaction of the two-course elective requirement.

An important component of the minor is field experience in archaeology, and all students will be encouraged to spend part of one summer at an excavation, either in the United States or abroad. The Department of Anthropology offers a summer field course, Anthropology 395 (Archaeological Field Studies), which will be conducted in the Carlisle area beginning in summer 1987. The classical studies department, in cooperation with the University of Durham, England, opened a Roman excavation near Stanwick in summer 1986. The cooperating faculty realize that some students may find work in a museum an important part of the archaeological studies; internships in the Trout Gallery or local museums will also be encouraged. Students will be advised by a faculty committee on Archaeology.

Archaeology Advisory Committee:

Mary E. Moser, Associate Professor of Classical Studies, Coordinator

William W. Vernon, Professor of Geology and Anthro-

R. Leon Fitts, Professor of Classical Studies

Kjell I. Enge, Assistant Professor of Anthropology

Biology

he Department of Biology provides the liberal arts scholar with a broad view of animal and plant life. Commanding this view, students see themselves as part of the biotic world rather than apart from it, and human social relationships are then recognized as only one aspect of an intricate system uniting all forms of life.

The study of biology brings together students with diverse backgrounds and very different interests in an atmosphere of inquiry to examine the biotic world. The examination process develops the skills of observation, analysis and expression, the ability to evaluate data and draw conclusions, and the art of distinguishing between substance and accident. Development of these qualities in the liberal arts student is a primary goal of the biology department's efforts.

Biology is an experimental science. Every biological fact and principle rests upon experiment and observation in the laboratory or in the field. Some good biology can still be done with a stout pair of hiking boots and a butterfly net, but for the most part expert usage of modern equipment is required. Expertise develops with hands-on experience, and for this reason a laboratory is an essential part of General Biology and upper level courses.

Biology 105 is a non-laboratory course designed for liberal arts students who are interested in biology and contemporary problems. Biology 111, 112, lecture and laboratory, introduce the structure and function of living systems and provide a broad foundation for majors and nonmajors alike. Biology 210 provides the potential major with training in selected areas of biology at the intermediate level: basic skills in handling information, computer usage in statistical analysis, literature searches, and critical reading of current journal articles are acquired. Three-hundred level courses provide for advanced work in the study of protists and plants (Bio. 322, 323, 325, 326, and 327); the study of animals (Bio. 318, 321, 333, and 334); and in specialized subject areas (Bio. 313, 314, 317, and 332) which encompass all of biology. Four-hundred level courses (Bio. 401, 412, 414, 417, and 421) provide opportunities for in-depth study of certain areas which are of current interest to the community of biologists.

The courses in biology comprise an appropriate background for students who contemplate immediate employment after commencement, as well as for those who plan to attend graduate school or a professional school. Through seminars and independent study or research, opportunities are provided for students to develop their research skills.

Valuable cocurricular learning activities, which students and faculty share, include the Biology Department Seminar and periodic field trips, for example, to the Great Smoky Mountains National Park and the New Found Harbor Marine Station.

Faculty:

William B. Jeffries, Professor of Biology. Ph.D., University of North Carolina. He teaches symbiosis, vertebrate, and invertebrate zoology. His current research is focused on barnacles that attach themselves to other marine animals such as crabs and sea snakes.

Paul Biebel, Professor of Biology. Ph.D., Indiana University. His instructional interests include field botany and non-vascular plants. His particular delight is seeing students discover and appreciate the beauty, variety, and utility of plants found on field trips and studied in the laboratory. His research is concerned with sex, reproduction, and classification of elegant algae, especially desmids, in culture.

Richard M. Lane, Associate Professor of Biology. Ph.D., University of Maryland. His teaching interests include physiology and embryology. He is a licensed pilot, and his current research is focused on the physiological responses to intermediate altitude.

Thomas Brennan, Associate Professor of Biology. Chairman. Ph.D., Rutgers University. He teaches courses in molecular biology and plant physiology. His research has included light modulation of chloroplast enzymes and the effects of secobarbital upon certain enzymes in the mammalian liver. He is currently studying the synthesis and metabolism of hydrogen peroxide in photosynthetic tissues.

James E. Jurgenson, Assistant Professor of Biology. Ph.D., University of Arizona. He teaches courses



in genetics, microbiology, and molecular genetics. His interests are in the area of regulation of gene expression. Past research topics include: coordinate regulation of chloroplast and nuclear genes in higher plants and algae, biosynthesis of delta-amino-levulinic acid (a porphyrin precursor), and regulation of synthesis of the chloroplast ATP synthase CF1. Currently he is applying the techniques of modern molecular genetics to problems of expression of developmental genes in *Aspergillus nidulans*, an ascomycete fungus.

Janet Wright, Assistant Professor of Biology. Ph.D., Cornell University. She teaches courses in ecology, population genetics and evolution, and biological aspects of contemporary problems. Her research interests deal with genetic population structure and functional morphology in mammals. She has studied genetics and behavior in woodchuck populations in southern Pennsylvania, and is interested in the use of woodchucks as a system for modeling the transmission of human hepatitis B virus.

Courses:

105. Biological Aspects of Contemporary Problems Students acquire an appreciation of the complexities of living things and living systems. They become familiar with biological principles by focusing on a variety of contemporary problems and also analyzing the underlying biological components. This course will not count toward a major or minor in biology. Three hours classroom a week.

108. **Modern Natural History** Through classroom study and field trips students learn to know various fascinating living creatures from the primitive to the most complex. They are also introduced to natural history literature which relates these organisms to our cultural, social, and economic history. *This course will not count toward a major or a minor in biology. Three hours classroom a week*.

44 Biology 1989-90 Catalogue

- *111, 112. **General Biology** The structure and function of living systems. Lectures, discussions, and laboratory observations and experiments, designed to provide the informed citizen with an understanding of the fundamental principles and methods used in biology. Three hours classroom and three hours laboratory a week.
- 210. Intermediate Biology A study of selected aspects of the growth, development, and functioning of living organisms. Topics include the expression and regulation of genetic information, the role of meiosis in the life cycle, patterns of embryological development and differentiation, energy conversions, and interactions at the population level. The lecture material is coupled to a laboratory experience intended to introduce the biology major to the acquisition, interpretation, and dissemination of scientific information, the use of the scientific literature, and a number of widely-used laboratory techniques. Seven hours classroom a week. This course is normally taken by intended biology majors during the fall semester of the sophomore year. Prerequisite: 111, 112.
- 313. **Cytology** An introduction to the structure and function of cells, through lectures, readings, and laboratory work. The laboratory will include various types of micro-technique, such as sectioning and staining of tissues, radioautography, and photomicrography. *Six hours classroom a week. Prerequisite: 111, 112, 210.*
- 314. **Ecology** Study of the interactions of organisms with each other, and with their environment, at the level of the individual, the population, the community, and the ecosystem. Lectures and readings consider both the theory of ecology and data from empirical research in the classic and current literature. Laboratory and field studies explore how ecologists perform quantitative tests of hypotheses about complex systems in nature. Six hours classroom a week. Prerequisite: 111, 112, 210 or Environmental Science 131, 132. Offered every other year. This course is crosslisted as Environmental Studies 314.
- 317. **Genetics** Principles of heredity and their impact on population dynamics, evolution, and human society. Laboratory projects are designed to acquaint students with modern techniques of conducting genetic experiments with living organisms. *Six hours classroom a week. Prerequisite: 111, 112, 210.*

- 318. **Embryology** The study of animal development. Material deals with descriptive embryology and the mechanisms of development including underlying biochemical bases. Laboratory includes observation of selected examples of vertebrate development and experimental investigations of developmental processes. Six hours classroom a week. Prerequisite: 111, 112, 210.
- 321. **Invertebrate Zoology** An integrated lecture and laboratory study of the anatomy, taxonomy, evolution, ecology, physiology, and embryology of invertebrates. Representatives of the major invertebrate phyla are examined in the field and in the laboratory. Six hours classroom a week. Prerequisite: 111, 112, 210 or Environmental Science 131, 132. Offered every other year.
- 322. Field Study of Plants A systematic survey of the plant kingdom through the collection and study of living plants. Frequent field trips are conducted as weather permits. An herbarium of named plants is prepared. Emphasis will be placed on the diverse features of plants which permit effective study of fundamental biological problems. Six hours classroom a week. Prerequisite: 111, 112, 210 or Environmental Science 131, 132. This course is cross-listed as Environmental Studies 322.
- 323. **Algae and Fungi** An integrated laboratory and classroom study of morphology and physiology of algae and fungi and the taxonomy of fungi. Emphasis will be placed on making accurate observations, using experimental techniques, analysing and recording data accompanied by accurate, precise interpretation, documentation, and communication of scientific concepts. Six hours classroom a week. Prerequisite: 111, 112, 210. Offered every other year.
- 325. Vascular Plants: Structure and Function An integrated study of the anatomy and physiology of higher plants. Structure-function relationships in the cells, tissues, and organs of vascular plants, growth and development, photosynthesis, and selected additional topics will be studied. Includes lecture, laboratory, and discussion of papers from the primary literature. Six hours classroom a week. Prerequisite: 111, 112, 210.

Dickinson College Biology 45

- 326. **Microbiology** The taxonomy, physiology, and heredity of bacteria and viruses. Laboratory projects are designed to provide technical competence in handling micro-organisms. Six hours classroom a week. Prerequisite: 111, 112, 210 or Environmental Science 131, 132.
- 327. Lichens and Bryophytes An integrated laboratory and classroom study of morphology and physiology of lichens and bryophytes and the taxonomy of lichens. Emphasis will be placed on making accurate observations, using experimental techniques, analysing and recording data, accompanied by accurate, precise interpretation, documentation, and communication of scientific concepts. Six hours classroom a week. Prerequisite: 111, 112, 210. Offered every other year.
- 332. Enzymes and Metabolism A lecture and laboratory study covering the metabolism of the major classes of molecules found in living systems. Includes metabolic pathways and regulation, enzyme structure and function, bioenergetics, metabolic disorders, and other selected topics. The laboratory is designed to acquaint the student with methods used to study the properties and behavior of biological molecules and their functions in cellular metabolism. Six hours classroom a week. Prerequisite: 111, 112, 210, Chemistry 251, 252, or permission of the instructor. Offered every other year.
- 333. **Physiology** A study of physiological mechanisms in the animal kingdom, stressing the structural and functional bases of biological activities. Emphasis is on vertebrate organs and organ systems. *Six hours classroom a week. Prerequisite: 111, 112, 210.*
- 334. **Vertebrate Zoology** An integrated lecture and laboratory study of the anatomy, embryology, physiology, and evolution of vertebrates. Representatives such as the lancelet, lamprey, shark, perch, mud puppy, pigeon, chicken, and rat are studied from the perspective of functional anatomy. *Six hours classroom a week. Prerequisite: 111, 112, 210.*
- 401. **Special Topics** An in-depth study of specialized subject areas of biology. Some recent topics were: Experimental Virology, Biology of Crustacea, and Photosynthesis. Topic, course structure, credit, and instruc-

- tor will be announced by preregistration. Prerequisite: 111, 112, 210, and at least two upper level biology courses, and permission of the instructor. Offered occasionally.
- 412. **Seminar** Through detailed study of the primary biological literature, students will acquire an understanding of the methodology and philosophy of scientific research. Includes study of the formulation of hypotheses, the design of experiments or observations to test these hypotheses, and the interpretation of results. Subject matter will vary based upon the interests of instructor and students. This course satisfies the requirement for a research experience for the biology major. *Prerequisites: Biology 111, 112, 210, and one upper-level biology course.*
- 414. **Population Genetics and Evolution** Study of current knowledge of the evolutionary process and its genetic basis. Lecture, readings from the primary literature, laboratory investigations, and field study will be used to consider evolutionary trends. Emphasis will be on the new theoretical and empirical approaches that population geneticists and evolutionary biologists are using to reexamine such issues as how evolution affects gene pools; how fast populations can evolve; the implications of the fossil record; causes of extinctions; how species originate; relationships among living organisms; and adaptive versus non-Darwinian evolution. Six hours classroom a week. Prerequisite: 111, 112, 210, and 314 or 317. Offered every other year.
- 417. **Molecular Genetics** A study of the molecular basis of genetic information, including the structure, packaging, and processing of nucleic acids and related molecules. The course work will cover replication, transcription, translation, as well as the development and use of recombinant DNA techniques. The laboratory will acquaint the student with the techniques used in studying these processes, including the use of restriction endonucleases in the construction and transfer of recombinant vectors. *Prerequisite: 111, 112, 210, Chemistry 251, 252, and any one of the following: 313, 317, 326, 332, Chemistry 472. Offered every other year.*

46 Biology 1989-90 Catalogue

421. **Symbiosis** A concentrated study of the biology of association between dissimilar organisms, including representative parasites of man. Readings in the recent literature, examination of different levels of intimacy through selected field and laboratory exercises with living and preserved organisms, and directed individual research projects exploring less well known associations will be employed in the learning experience. Six hours classroom a week. Prerequisite: Biology 111, 112, 210, and one 300 level biology course, and permission of the instructor. Offered every other year.

Major:

Nine courses, including Biology 210, one of the following upper-level courses in botany: Biology 322, 323, 325, or 327, and one of the following upper-level courses in zoology: Biology 318, 321, 333, 334. In addition, Chemistry 251 and 252 are required. The nine biology courses required for the major may not include more than one course in independent study or research unless the student has received advanced placement beyond Biology 111-112; then two courses of independent study or research may be counted toward the major. Of the nine biology courses required for the major, at least four must be upper-division laboratory courses (exclusive of independent study-research) taken in residence at Dickinson.

Beginning with the entering class of 1989, all biology majors must include a research experience as part of their undergraduate program. This requirement may be satisfied by successful completion of any one of the following:

- 1) an independent research project in biology;
- 2) an off-campus internship for biology credit;
- a research-oriented seminar in biology (Biology 412);
- a research experience not covered by the above but deemed equivalent by the Department.

Two semesters of mathematical sciences (Calculus and/or Statistics), and two semesters of physics are strongly recommended for students intending graduate study toward an advanced degree in biology or the health professions. Some of these courses, are prerequisites for upper-level courses and students should *ex-*

amine course descriptions carefully. Students should consult with their faculty advisers about taking additional courses in other sciences that might be important to their career plans. Students who contemplate graduate work in biology are encouraged to gain familiarity with one or more foreign languages (especially French, German, Russian).

Minor:

Six courses, including one of the following upper-level courses in botany: Biology 322, 323, 325, or 327, and one of the following upper-level courses in zoology: Biology 318, 321, 333, or 334. In addition, Chemistry 131, 132 are required.

Note: A student intending to receive certification from the Pennsylvania Department of Education at the time of graduation must include within his or her program a course in botany, a course in genetics, and a course in ecology.

Dickinson College Biology 47

Chemistry

he chemistry department provides students with knowledge and understanding of the composition, structures, properties, and transformations of natural and man-made substances through lectures, problem-solving exercises, laboratory work, research opportunities, and outside speakers. The department maintains an informal, personalized atmosphere in which students, faculty, and support staff can work and talk with each other as friends. Qualified majors have the chance to help the department and other students as tutors or teaching assistants.

The courses in general chemistry (Chem. 103, 104, 111, 112) are offered for students who wish to acquire or strengthen a background in chemistry but do not plan a career in science. The department feels keenly the need for citizens with some exposure to and appreciation of the questions, methods, and results of science and of its limitations as well. The Principles of Chemistry course (Chem. 131, 132) provides an indepth introduction to chemistry for students planning to take further chemistry courses or to take a major in a science. Students considering a major in chemistry should schedule Principles of Chemistry their first year in order to allow time for a wider choice of electives in their upperclass years.

The advanced courses offered by the department are designed to meet the needs of students who are preparing for graduate work in chemistry or related areas, for medicine, dentistry, or other health professions; for high school teaching of chemistry; and for a wide variety of chemistry-related positions in industry and government. These courses provide background in the major subfields of chemistry, and those numbered above 350 provide the opportunity for advanced or specialized work.

The department has well-equipped laboratories for teaching and research. The modern computer controlled instruments, gas chromatograph-mass spectrometer, Fourier transform infrared spectrophotometer and Fourier transform nuclear magnetic resonance spectrometer are routinely used by the students. The department, including the chemistry library, is housed in Althouse Science Hall.

The chemistry department program and facilities are fully accredited by the American Chemical Society.

Faculty:

Gerald C. Roper, Professor of Chemistry. Ph.D., Boston University. His major interests are in the area of physical-inorganic chemistry. His research areas include chemical thermodynamics, kinetics, and both theoretical and experimental molecular spectroscopy. He has a current interest in transition metal chemistry, specifically in complexes of gold. (On leave 1989-90)

William R. Schearer, Associate Professor of Chemistry. Ph.D., Princeton University. His major interest is the chemistry of natural products, particularly the chemistry and biochemistry of nutrition. His continuing laboratory research project is the synthesis of new and potentially useful organic compounds containing the tetrahydrofuran ring system. Other interests are in applied chemistry, chemical safety, and effective methods of teaching chemistry.

Robert E. Leyon, Associate Professor of Chemistry. Chairman. Ph.D., Princeton University. His interests lie in analytical chemistry, especially graphite furnace atomic spectroscopy, and also in computer programming and environmental chemistry. He is currently working on an autoranging method of analysis using calibration curves obtained at several times during the measurements of a given sample and a new method of detecting overlapping peaks in chromatography.

Cindy Samet, Assistant Professor of Chemistry. Ph.D., University of Virginia. Her interests are in physical chemistry, especially molecular spectroscopy. Her research focuses on ultraviolet, visible, and infrared spectroscopic studies of molecules frozen in noble gas matrices at very low temperatures.

Courses:

*103, 104. **General Chemistry** Similar to *111,112 below except that a term paper is required in place of laboratory work. For students planning to major outside the sciences. *Three hours classroom a week. This course will not satisfy the one-year laboratory science distribution requirement. Either course will, however, count*



as the third required course in Division III. If students elect to take 131,132 in addition to 103,104, graduation credit will be dropped for 103,104 due to similarity in course content.

*111, 112. General Chemistry Some fundamental concepts of atomic structure, bonding, states of matter, and chemical reactions. Basic principles of organic chemistry and biochemistry. Applications in everyday life are emphasized. Three hours classroom and two hours laboratory a week. This course sequence will not count toward major or minor requirements in Biology or Chemistry. Students who decide to pursue chemistry courses beyond the 100 level, after completion of 111 or 112, may with the approval of the department be allowed to enroll in 132. Students will not normally receive graduation credit for both 111 and 131, or both 112 and 251.

*131, 132. **Principles of Chemistry** Atomic and molecular structure, states of matter, chemical equilibrium, kinetics of reactions, thermodynamics, electrochemistry, coordination compounds, and the periodic table. The laboratory work is designed to illustrate

and reinforce material presented in lectures. High school chemistry is expected of students in this course; those without it will have to do extra work in the first month to catch up. *Three hours classroom and three hours laboratory a week.*

*251, 252. **Organic Chemistry** The chemistry of carbon compounds. The various functional groups and their transformations are studied systematically. Reaction mechanisms, the formulation of synthetic schemes, stereochemistry, and the application of these principles are emphasized. Laboratory work involves the preparation and analysis of organic compounds. *Three hours classroom and four hours laboratory a week. Prerequisite: 132.*

282. Quantitative Analysis A survey of fundamental classical and instrumental methods used for the quantitative analysis of substances. Emphasis on statistics, solution stoichiometry, equilibrium, and techniques used in making laboratory measurements. Three hours classroom and four hours laboratory a week. Prerequisite: 132.

Dickinson College Chemistry 49

*331, 332. **Physical Chemistry** The fundamentals of chemical thermodynamics, kinetics, and quantum mechanics introduced as a unifying basis for the discussion of chemical and phase equilibria, electrochemistry, reaction mechanism, spectroscopy, and atomic and molecular structure. *Three hours classroom a week. Prerequisite: 132, either Physics 111, 112 or 131, 132 and Mathematics 162.*

339. Experimental Physical Chemistry Quantitative experiments in calorimetry, chemical and phase equilibria, surface pheonomena, chemical kinetics, electrochemistry, spectroscopy and molecular structure. Scientific report writing and the analysis of data are stressed. Eight hours of laboratory a week. Prerequisite: 282, 331, 332 (332 may be taken concurrently).

355. Advanced Organic Chemistry Advanced studies in the synthesis, structure elucidation, reaction mechanisms, and literature searches of organic compounds. Laboratory work includes advanced synthetic techniques, modern gas and liquid chromatographic separation, and the use of computer-based infrared, nuclear magnetic resonance, and mass spectrometric instrumentation. Integration of these techniques in practical problem solving is emphasized. Three hours classroom and four hours laboratory per week. Prerequisite: 252.

431. **Inorganic Chemistry** Atomic and molecular structure, modern principles of chemical bonding, chemical trends and the periodic table, coordination chemistry, reaction mechanisms of ligand substitution, transition metal chemistry, and chemistry of selected transition and representative elements. *Three hours classroom a week. Prerequisite: 332.*

472. **Biochemistry** Introduction to the chemistry of living systems, with emphasis on their molecular structures, chemical properties, metabolic pathways, and energetics. The chemical bases for biological phenomena are extensively examined. *Three hours classroom and four hours laboratory a week. Prerequisite:* 252.

483. **Instrumental Analysis** Basic principles of instrumentation, followed by a survey of electrical, nuclear, chromatographic, and (especially) spectroscopic methods of analysis. Emphasis is on underlying prin-

ciples rather than on particular instruments. Three hours classroom and four hours laboratory a week. Prerequisite: 282 and 332.

490. Advanced Topics in Chemistry Topics may be drawn from areas such as heterocycles, natural products, medicinal chemistry, food and nutrition, industrial chemistry, organic synthesis, inorganic synthesis, nuclear magnetic resonance, measurement including computer applications, spectroscopy, statistical thermodynamics, and catalysis. Three hours classroom a week. Prerequisite: Permission of the instructor.

Major:

Ten courses, including 131, 132, 251, 252, 282, 331, 332, 339, and two courses chosen from 355, 431, 472, 483, 490, and Geology 303 (Geochemistry). In addition, Physics 111, 112 or 131, 132, and Math 161, 162 are required.

Minor:

Six courses, including 131, 132.

Note: Any student desiring certification by the American Chemical Society should satisfactorily complete: 131, 132, 251, 252, 282, 331, 332, 339, 355, 431, and 483; one course of independent research or independent study with laboratory; and one course from 472, 490, advanced physics, or advanced mathematics. Courses in advanced mathematics, computer science, and German or Russian are strongly recommended. Apply through the department chairman.

50 Chemistry 1989-90 Catalogue

Chinese

onsidering the impact China has had throughout Asian history and now on the world at large, China cannot be ignored. Chinese language study is an excellent means to become acquainted with this important political and cultural force.

Courses in Chinese at Dickinson are designed to offer students a sufficient background in the language so that they will be prepared for either classical or modern Chinese study. Classwork emphasizes speaking, reading, and writing modern Mandarin, also called Guoyu or Hanyu, the national language of both the People's Republic of China and Taiwan. Recognizing the differences in the political, social, and language spheres between the PRC and Taiwan, classes incorporate important elements of both. The romanization system for the class is that officially adopted by the PRC, pinyin. Both the traditional characters, used in Taiwan and throughout China's history, and the simplified characters, instituted under Communist China, are studied in class. So also are the social customs reflected in the language of both.

The four-semester sequence covers language texts in spoken and written Chinese, dictionary use in translating, and oral practice with audio and video tapes. Students are also exposed to various pieces from China's literary history, including traditional poetry, contemporary short stories, and Communist writings.

Study of Chinese is an integral part of such majors as East Asian Studies and International Studies. Although there is no major or minor offered in Chinese language, completion of the four-semester sequence fulfills the College's foreign language requirement.

Faculty:

Carol M. Derrickson, Instructor in Chinese and East Asian Studies. M.A., University of Pennsylvania. Her teaching includes beginning and upper-level Chinese language courses, and other Asian-related courses, such as Chinese literature in translation. She is currently instructor of Tai Ji Quan (T'ai Chi Ch'uan), a Chinese martial art, in the physical educa-



tion department. Her research is on modern feminist literature in China; she continues practicing Chinese painting and calligraphy as a pastime.

Courses:

101-102. **Elementary Chinese** A study of the fundamentals of Mandarin Chinese, including grammar, reading and writing using both traditional and simplified characters, pinyin romanization, pronunciation and conversational skills. *Offered every other year, depending upon demand.*

211, 212. Intermediate Chinese An enhancement of the oral and written skills of elementary language study. In addition, students will learn to use dictionaries to translate original literary works. Extra conversational work will be included, geared to understanding and participating in Chinese culture. Offered every other year, depending upon demand. Prerequisite: Chinese 102, or the equivalent.

231, 232. Advanced Chinese Advanced practice in reading, writing, speaking, and understanding Chinese.

(See East Asian Studies)

Classical Studies

I socrates wrote, "Past deeds are indeed a common legacy to us all. But to make proper use of them, to conceive rightly their details and document them with polish is the gift of those who think." Courses in classical languages give opportunity for such thought about the past. Drawing upon the literature, history, and culture of Greece and Rome, students are challenged to examine the details of antiquity and to find the inspiration and practical wisdom of peoples faced with problems similar to those of today.

Courses offered by the department acquaint students with those Greek and Latin authors whose greatness stands undiminished by the judgment of time. The department concentrates on a few of these authors spanning the eighth century B.C. to the Christian era of the late Roman period. The program includes both elementary and advanced courses, with majors in either Latin or Greek. Hebrew texts are also studied in the department in recognition of their role as significant sources of ancient life. For students interested in studying the classical world in the record of its monuments, the department offers a series of courses in archaeology, from the Mycenaean Bronze Age through the late Roman Empire.

Dickinson College is affiliated with the Intercollegiate Center for Classical Studies in Rome, administered by Stanford University, and majors are thus afforded an opportunity to study within sight of the monuments themselves.

Recent graduates of the program have gone to such graduate schools as Harvard, Michigan, North Carolina, Ohio State, Princeton, Cambridge, Dublin, Oxford, and Toronto. All majors of recent years who wished to continue their education in classics have been accepted into programs of their choice. Many, however, have chosen to teach on the secondary level, and there will continue to be a need for teachers of Latin in high schools, private or public. Many students have chosen to major in classical languages as preparation for professional training, law school, theological seminary, and even medical school.

Faculty:

Philip N. Lockhart, Professor of Latin. Ph.D., Yale University. His Latin research centers on Vergil and Vergilian interpretation, especially the Georgics and Servius' commentaries on the poetry. In Greek he has published on Homeric language and Hellenistic epigraphy. Another field of research is ancient cattle raising. For his teaching he extends into linguistics and literary criticism.

Robert D. Sider, Professor of Classical Studies. D. Phil, Oxford University. He has published on the continuity of the classical tradition of rhetoric in Tertullian, on the relation between literature and theology in the second century A.D., and on the New Testament scholarship of Erasmus. Interests include Hellenistic philosophy, and the social and intellectual history of late antiquity. (On leave 1989-90)

R. Leon Fitts, Professor of Classical Studies. Ph.D., Ohio State University. He specializes in ancient history, Romano-British archaeology, Thucydides, and Catullus. His scholarship has focused on fifth century Athens and Roman Britain, particularly on the Brigantes of that province of Rome.

Stanley N. Rosenbaum, Associate Professor of Religion and Classics. Ph.D., Brandeis University. He is interested in Biblical philology, especially in semantic field study. Current research centers around the Book of Amos.

Mary E. Moser, Associate Professor of Classical Studies. Chairman. Ph.D., University of Pennsylvania. Her teaching includes Homer, Horace, and Roman historians, in addition to Etruscan, Roman, and Greek archaeology. Her research specialization falls in the archaeology of the Italic Iron Age period, and Etruscan pottery.

Classical Civilization

Classical Literature and Mythology

100. **Greek and Roman Mythology** A general introduction to the texts and narratives of the chief myths of Greece and Rome and their impact on Western civilizations with special reference to the fine arts:

music, sculpture, painting, and literature. This course will fulfill neither a distribution nor a major requirement.

110. Tragedy and Comedy in Greek Literature This course begins with a study of tragic and comic elements in the Homeric *Illiad* and *Odyssey*. The formal origins of Greek Tragedy and Comedy are then traced. There are extensive readings in the tragedies of Aeschylus, Sophocles, and Euripides, and in the comedies of Aristophanes and Menander. The course includes a careful consideration of Aristotle's *Poetics*, and a review of some modern theories on the nature and significance of tragedy and comedy in ancient Greece. The literature is read in English translation. *Offered every other year. This course will fulfill a literature requirement in the humanities distribution requirement.*

Classical Archaeology

121. Introduction to Greek Archaeology An introduction to the archaeology of Greece from ca. 4000 to 200 B.C. The interpretation of ancient Greek civilization from evidence of archaeological excavations and classical literature. Mycenaean and Minoan cultures of the Bronze Age period; the emergence of Greek sculpture, architecture, and pottery from the Dark Age; Athens in the Age of Pericles; Hellenistic townplanning, architecture, and sculpture. Offered every other fall.

122. Mycenaean and Minoan Archaeology An indepth examination of the cultures flourishing in the Aegean basin from ca. 4000-1000 B.C. (Neolithic through Late Bronze Age periods). Emphasis placed on the development, flourishing, and extinction of Mycenaean and Minoan cultures, as seen from the perspective of recent excavations. Special topics include the establishment of the Cyclopean citadels (who were the Shaft Grave Peoples?); the rise of Mycenaean and Minoan empires: palatial architecture, pottery, burials; domestic architecture and wall paintings from Thera, the Minoan Pompeii; the collapse of the Mycenaean Empire—invasion of the Sea Peoples or volcanic eruption? Offered every other spring.

123. **Introduction to Etruscan Archaeology** An introduction to the archaeology of ancient Italy from

ca. 5000 to 200 B.C., focusing on Etruscan culture. The interpretation of ancient Italic civilization from evidence of archaeological excavations and classical literature. The settlement of Italy in remote prehistoric times; the development of metallurgy; Iron Age Italic cultures prior to and during Greek colonization of the peninsula; Who were the Etruscans?—modern and ancient theories vs. archaeological evidence; Etruscan architecture, sculpture, painting, pottery, metalwork; Etruscan kings of Rome; political, economic, and cultural domination of early Rome. Offered every other fall.

124. Introduction to Roman Archaeology An introduction to the archaeology of ancient Italy from ca. 800 B.C. to ca. 400 A.D., focusing on Roman culture. The interpretation of Roman civilization from evidence of archaeological excavations and classical literature. Etruscan contributions to Roman culture; the foundation of Rome, or Livy vs. archaeology; the development of urban planning and architectural types (fora, temples, baths, amphitheaters, etc.); life in two small towns, Pompeii and Ostia; Roman sculpture and portraiture. Offered every other spring.

The following course is offered in England:

301. History and Archaeology of Roman Britian This course examines the Roman occupation of Britian with special emphasis on the Roman presence in Northern England. The course will concentrate upon work at a newly opened excavation of a Roman site at Stanwick. The College is conducting this excavation in conjunction with the University of Durham. The dig provides training for students who have had no previous experience in the techniques of archaeology. While living and working with English students, they will have a unique opportunity to participate in an intensive field work experience, eight hours a day for three weeks. Offered in Great Britian during the summer session only.

Classical History

251, 252. **Hellenic History** First semester: a study of Minoan and Mycenean civilization, the Homeric problem and rise of the polis, the Persian Wars, and the development of Athenian democracy to 478 B.C. Second semester: Greek history from 478 to 323 B.C. *Alternates with 253, 254. Offered every other year.*



253, 254. **Roman History** First semester: a study of the Roman state from prehistoric times to the end of the republic. Second semester: Roman history from the establishment of the Principate to the death of Justinian, 565 A.D. *Offered every other year.*

Classical Languages

Greek

101-102. **First-Year Greek** Drill on the fundamentals of Greek grammar and the study of vocabulary. Selected prose, such as Plato's Euthyphro and Crito, are read in the second semester. *Please refer to Graduation Requirements (Languages)*.

211, 212. **Second-Year Greek** First semester: an introduction to Homer's Iliad. Second semester: the reading of selected tragedies of Euripides. *Prerequisite:* 101-102 or the equivalent.

214. **The Greek New Testament** Readings in Greek from the New Testament. Consideration will be given to syntax and style as well as to the thought and intention of the writers. Topics may vary from year to year.

233. **Herodotus** A study of Herodotus as historian. *Prerequisite: 211, 212 with a grade of at least C. Offered every other year.*

234. **Homer** A study of the Odyssey, with comparative readings in Hesiodic epic. *Prerequisite: 211, 212 with a grade of at least C. Offered every other year.*

391, 392. **Seminar: Greek Drama** A study of the Greek theater, with special emphasis on tragedy and comedy as literary types. *Offered every other year. Prerequisite: 233 or 234 or permission of the instructor.*

393, 394. **Research Seminar** Readings, conferences, and research on selected areas of Greek literature. Offered every other year. Prerequisite: 223 or 234 or permission of the instructor.

Major:

Ten courses numbered 102 or above. Classical Studies 251 and 252 may be counted toward this requirement. Philosophy 391 may be substituted for either of these Classical Studies when the subject matter is Plato.

Minor:

Six courses numbered 102 or above. Classical Studies 251 or 252 may be counted toward this requirement, but not both.

Note: It is recommended that majors elect Fine Arts 202.

Hebrew

101-102. First-Year Biblical Hebrew Fundamentals of Hebrew morphology and grammar. Second term includes readings from Biblical narrative texts. Please refer to Graduation Requirements (Languages).

211, 212. Second-Year Hebrew Review of grammar, rapid reading of selected texts; Book of Amos in the second semester. Prerequisite: 101-102 or the equivalent.

Note: A major and minor are not offered in Hebrew. Interested students should refer to the Judaic Studies program.

Latin

101-102. First-Year Latin Drill in the fundamentals of Latin grammar and vocabulary. Selected prose from the Roman Republic is read in the second semester. Please refer to Graduation Requirements (Languages).

- 111, 112. Second-Year Latin Review of Latin syntax. Readings from Cicero in the first semester, Vergil's Aeneid in the second semester. Prerequisite: 101-102 or the equivalent.
- 233. Roman Historians Readings from Roman historians, with particular emphasis on Livy. Prerequisite: 111 or 112.
- 234. Latin Poetry Horace, Odes and Epodes; Catullus; the Elegists; Ovid. The topic varies from year to year. Prerequisite: 111 or 112.
- 331. Cicero Essays and letters, with stress on intellectual life of the age of Cicero. Offered every third year. Prerequisite: 233 or 234.
- 332. Vergil Aeneid VI-XII, studied in the light of ancient poetical theory and the epic tradition. Offered every third year. Prerequisite: 233 or 234.

- 341. Caesar The Bellum Civile, with special stress on Caesar as prose stylist. The nature and purpose of the Commentaries as a literary type. Offered every third year. Prerequisite: 233 or 234.
- 342. Lucretius The philosophy and poetry of the De Rerum Natura. Offered every third year. Prerequisite: 233 or 234.
- 351. Juvenal The nature of rhetorical poetry. Careful reading of the Satires. Offered every third year. Prereguisite: 233 or 234.
- 352. Tacitus Readings in the Annals and shorter works. Tacitus as historian and historical source. Offered every third year. Prerequisite: 233 or 234.
- 391, 392. The Latin Language First semester: introduction to historical grammar and syntax. Second semester: the syntax of Classical Latin. Offered every other year. Prerequisite: 233 or 234 or permission of the instructor.
- 393, 394. Seminar Readings and conferences in a special topic of Latin literature. Introduction to research in classical studies. Offered every other year. Prerequisite: 233 or 234 or permission of the instructor.

The following course is offered in Italy:

211. Latin Summer Immersion Visits to the sites of Roman history and poetry, including southern Italy (Pompeii, Herculaneum, Paestum), Rome, and Etruscan regions; archeological study, reinforced with readings from Latin literature connected with the area. Prerequisite: Latin 112 or the equivalent and acceptance into the Latin Summer Immersion Program.

Major:

Ten courses numbered 111 or above, including 111, 112, 233, 234; or the equivalent of these courses. Classical Studies 253, 254 may be counted toward this requirement.

Minor:

Six courses numbered 111 or above, including 111, 112, 233 or 234. Classical Studies 253 or 254 may be counted toward this requirement, but not both.

Comparative Civilizations

The Comparative Civilizations Program is intended to introduce the broadest possible dimension of human experience into the study of the liberal arts. The comparative study of alternative civilizations can give deeper meaning to our understanding of our own traditions. It can also increase our appreciation and understanding of those civilizations that share neither the original nor the contemporary assumptions of our own.

The Comparative Civilizations Program consists of all courses offered at Dickinson College that focus on either (a) comparison of civilizations or of their essential components or of the historical processes by which they have evolved or disintegrated or (b) encounters between particular civilizations or between a civilization and less complex societies, in either case provided that at least half of the time in the course is devoted to materials from outside of the traditions that

have shaped the modern West or entered into its composition. Courses offered by particular departments which also meet the criterion for the Comparative Civilizations Program and the comparative civilizations distribution requirement (See Graduation Requirements: Distribution) will be listed each semester in the preregistration booklet. In addition the program itself offers four courses.

Faculty:

Vytautas Kavolis, Dana Professor of Comparative Civilizations and Professor of Sociology. Ph.D., Harvard. His past publications include works on the sociology of art, comparative social problems, and cultural psychologies. His current research is on empirical mapping of moral cultures, comparative histories of selfhood and sociability, cultural modernization, and antimodernist movements.

T. Scott Smith, Associate Professor of Physics/ Astronomy. Ph.D., University of Maryland. Within his area specialty of South Asia, he has a particular interest in cosmological design as reflected in Hindu temple architecture, Gandhiism, and the struggles between traditionalism and modernity as reflected in contemporary Hindi films. (On leave 1989-90)



Harry Krebs, Associate Professor of East Asian Studies. Coordinator. Ph.D., Temple University. His various teaching responsibilities in different departments cover the arts, religions, and philosophies of Asian civilizations. His research interests are in Buddhist epistemology, comparative studies of aesthetic sensibilities, and modern Japanese thought.

Neil B. Weissman, Associate Professor of History. Ph.D., Princeton University. His areas of specialization involve the comparative history of Russia, Japan, and Germany, with emphasis on the impact of modernization on traditional societies and cultures. His research deals with police and deviance in early Soviet Russia and with the origins of the Soviet public health system. (On leave 1989-90)

Courses:

102. **Selected Problems in Civilizational Analysis** Exploration of some problem of general human significance as it has been dealt with by two or more of the world's major civilizations.

105. **Non-Western Civilizations** A sustained study of a particular non-Western civilization: India, China, Japan, civilizations of the Middle East, Africa, or ancient America.

200. **Special Topics in Non-Western Studies** Exploration of topics of general human significance as they have been dealt with in one or more of the world's non-Western civilizations.

490. Issues in Comparative Civilizational Studies A faculty-student seminar intended for the joint discussion of questions of method and substance arising in the comparative study of civilizations. *Prerequisite: Permission of the instructor(s).*

No major or minor is offered in the program. Interested students should explore the feasibility of a self-developed major, proposed in cooperation with the Committee on Comparative Civilizational Studies.

Computer Science

See Mathematics and Computer Science

Dramatic Arts

Inherent in the dynamic connection between living performer and responsive audience is a celebration of the profound joy and sorrow of being human. We believe the human interaction that characterizes dramatic performance makes theatre and dance an essential activity in an increasingly technological world. The program in Dramatic Arts is designed to meet the needs of three crucial constituencies: future professionals in the arts, future audience member, and those students who wish to enrich their undergraduate experience through activities in theatre and dance.

The dramatic arts curriculum includes study of the practical, theoretical, literary, and historical aspects of theatre and dance. Our courses are open to all students who complete the appropriate prerequisites. Students wishing to major in dramatic arts may choose from focus areas in acting/directing, dance, and dramatic literature. A minor in dramatic arts is also offered. In addition, the Department of Dramatic Arts cosponsors Dickinson's foreign study program in East Anglia, England, which allows students the opportunity to study Great Britain's rich theatrical heritage first hand.

The Department of Dramatic Arts supports two active producing groups: the Mermaid Players and the Dance Theatre Group. Participation in these groups is open to all students. Productions are viewed as a laboratory to apply knowledge learned in class, as an enriching cocurricular activity, and as a cultural resource for the Dickinson community.

Many students active in dramatic arts at Dickinson go on to careers in law, advertising, broadcasting, film or other fields. In addition, recent graduates have often continued to develop as theatre and dance professionals employed by the Folger Theatre, Arena Stage, Center Stage, Central Pennsylvania Youth Ballet, the McCarter Theatre, and others. Some elect to continue study at top graduate programs including Carnegie-Mellon, Catholic University, and Circle-in-the-Square Conservatory.

Faculty:

Todd Wronski, Assistant Professor of Dramatic Arts. Chairman. M.F.A., Trinity University. He is an actor, director, and playwright with professional credits including The Guthrie Theater and the Dallas Theater Center. His special interests include new play development and melancholia in American drama.

Christine Vilardo, Assistant Professor of Dance. M.Ed., Temple University. She has taught and choreographed for Temple, Bryn Mawr College, and The Tanzfabrik, a studio which she founded and directed in Berlin, West Germany. She is the director of Moving Target, a performance group based in central Pennsylvania.

Scott Shattuck, Instructor in Dramatic Arts. M.F.A., University of Texas at Austin. He teaches in the areas of acting, directing, and theatre history. He has worked for the Denver Center Theater Company, the Texas Shakespeare Festival, and other regional professional theatres. Scott has particular interest and experience with classical texts.

Jim Drake, Designer and Technical Director for the Mermaid Players. B.A., Dickinson College. He has taught and designed at Goddard College. His particular artistic interests are theatrical design and lighting.

Marcia Dale Weary, Artistic Director of the Central Pennsylvania Youth Ballet. She also teaches courses in Ballet for our department. She and the C.P.Y.B. professional staff have faculty status, and any C.P.Y.B. course in Ballet may be taken for full academic credit.

Courses:

101. Introduction to Theatre A course designed to encourage an understanding and appreciation of theatre as an art form. Aesthetic foundations of theatre will be explored as well as the role of various theatre practitioners in the creation of today's theatre. The course will survey the evolution of theatre through major time periods, exposing students in the process to various types of dramatic literature and theatrical practice.

102. Introduction to Dance An introductory examination of the art of dance designed for students with little or no previous knowledge of dance. Through readings, discussion, and viewing of live performances and films, the course will explore the kinetic and conceptual components of dance (space, force, time, meaning, structure), will study the general development of concert dance and will discuss similarities and differences among various dance styles. It will attempt to ask and answer the questions of why, what, and how we dance.

103. **Theatre History** An historical survey of theatre practice, primarily focused on the origins and evolution of Western theatre. Theatre's "great eras" will be examined in detail, with particular attention placed on the relationship between culture and theatrical expression.

104. **Dance History** An in depth historical exploration of Ballet, Modern Dance, and Theatrical dancing in Europe and America. The course will examine the cultural forces affecting the development of these forms, their origins in Greece and Roman spectacle and will consider the contributions of the major figures (choreographers, teachers, etc.) in the field.

105. **Jazz Dance** The one-half credit studio course will introduce students to the art, discipline, and movement vocabulary of Jazz Dance. *One-half course each semester*.

106,107. **Modern Dance** Instruction in contemporary dance techniques designed to develop movement concepts and skills. *One-half course each semester.*

108, 109. **Introduction to Ballet** Instruction in classical ballet technique along with a study of ballet as a performing art. *One-half course each semester*.

111, 112; 211, 212; 311, 312; 411, 412. **Ballet Instruction I, II, III, IV** Open to students with previous experience in ballet who wish to continue ballet instruction at one of four levels: I. the basic level; II. the intermediate level, open to students who demonstrate a basic technique; III. the advanced level, open

58 Dramatic Arts 1989-90 Catalogue



to students who demonstrate substantial technical skill; IV. the performance level, open to students competent to perform ballet. One-half or one course may be taken each semester. Placement by audition at the Central Pennsylvania Youth Ballet, where all classes are held. Each course may be repeated for credit with permission of the instructor. These courses do not fulfill distribution requirements.

201. **Stagecraft** A studio course studying the theory and practice of production: scene construction, rigging painting, lighting, properties. Basic skills in mechanical drawing, carpentry, electricity, painting, and the manipulation of various scenic materials will be developed. Student participation in Mermaid Players

productions will provide practical application of theoretical materials. *Prerequisite: permission of instructor.*

202. **Medium of Movement** An exploration of physical experience as a source for artistic expression. Through assigned exercises, game structures, semi-improvisational tasks, and out of class projects, the student gains an understanding of the movement possibilities of the body and of their potential application to the formal disciplines of dance, music, theatre, and fine arts.

203. **Acting** An introduction to the principles and theories of acting combined with practical exercises and scene performance.

Dickinson College Dramatic Arts 59

204. **Composition** An overview of methods of, sources for, and approaches to dance composition. In class studies and out of class assignments will acquaint the student with the variety of ways of discovering, inventing, and organizing movement material. It includes practical exploration both of the formal elements of dance (i.e. space, force, time) and of the interaction of movement with music, text, and props.

205. **Directing** A study of the major techniques employed by stage directors. Visual theory, text analysis, collaborative techniques, and organizational strategies will be examined and applied in class exercises including the direction of scenes. *Prerequisite: 203*.

301. Special Topics in Performance and Production An examination of selected aspects of theatrical experiment, theory, and practice. Topics chosen at the discretion of the instructor and in consultation with students, e.g., advanced study in various aspects of production, design, performance, and staging. Specific topics to be announced before registration.

303. **Advanced Acting** An in depth examination of the process of acting. Technical, interpretive, and psychological aspects will be explored through reading, exercises, and scene performances. Major theories of acting will be presented and discussed in the context of developing a workable, individualized approach to acting. *Prerequisite: 202, 203.*

305. **Advanced Directing** An inquiry into the process of translating a play from the printed text to the live stage. Detailed analytical techniques and major directorial theories will be examined through readings, class discussion, and written assignments. Each student will direct a one act production under advisement of the instructor. *Prerequisite: 201, 205.*

The Mermaid Players Student support organization in theatre which selects schedules and produces three major productions annually in collaboration with the Department of Dramatic Arts. Membership and voting privileges are open to all students who meet established membership criteria. Auditions for productions are open to all students.

Dance Theatre Group Student support organization in dance which produces fall and spring concerts of student choreography in collaboration with the Department of Dramatic Arts. Membership and voting privileges are open to all students who meet established membership criteria. Auditions for dance concerts are open to all students.

The Freshman Plays A program of one act plays presented each fall by student directors with freshman students in the casts.

Lab Shows A laboratory program sponsored by the Mermaid Players to encourage and provide for a series of experimental productions.

Major:

All majors take a six course "core" requirement, which includes: 101, 103 or 104, 201, 202, 203, 205. A student may choose from three options to complete the major. For Acting/Directing Emphasis: 303, 305, ENG 346 or 347, and one approved course in dramatic literature. For Dance Emphasis: 102, 204 and two course credits in dance technique. For Literature Emphasis: ENG 346 or 347 and three approved courses in dramatic literature.

Minor:

201, 202 and two from the following four courses: 101, 102, 103, 104. Also one approved course in dramatic literature and one approved course in studio performance.

Recommended for Secondary Teachers: 201, 203, 205.

East Asian Studies

he East Asian Studies Program is an interdisiciplinary program with a focus on East Asia, particularly on China and Japan. East Asia plays an increasingly important role in international cultural, economic, and political affairs. East Asian Studies is intended to help students put these two areas in proper perspective and give a truly international dimension to a liberal arts education. A deeply rooted, and thoroughly integrated understanding of two different but related civilizations and their place in the world is provided by extensive training in their languages and literatures, and insights gained through the perspectives of the several disciplines in which courses are offered on East Asian subjects.

Faculty:

Harry Krebs, Associate Professor of East Asian Studies. Director. Ph.D., Temple University. His various teaching responsibilities in different departments cover the arts, religions, and philosophies of Asian civilizations. His research interests are in Buddhist epistemology, comparative studies of aesthetic sensibilities, and modern Japanse thought.

Neil Weissman, Associate Professor of History. Ph.D., Princeton University. His areas of specialization involve the comparative history of Russia, Japan, and Germany, with emphasis on the impact of modernization on traditional societies and cultures. (On leave 1989-90)

David Strand, Associate Professor of Political Science. Ph.D., Columbia University. His field is 20th century Chinese politics and history. Research interests include local politics, political participation, and state-building.

Roselee Bundy, Assistant Professor of Japanese Language and Literature. Ph.D., University of Chicago. Her field of specialization is classical Japanese literature with emphasis on poetry and poetics. Her

research and teaching interests include Japanese women's literature, classical Japanese art and aesthetics, and the modern Japanese novel.

Ann M. Hill, Assistant Professor of Anthropology. Ph.D., University of Illinois. Areas of specialization are: economic anthropology, kinship, ethnic relations, complex societies, and the relation of language to culture. She has done fieldwork in Northern Thailand and studied in the People's Republic of China. Current research focuses on trade and ethnic politics in southwestern China.

Carol Derrickson, Instructor of Chinese and East Asian Studies. M.A., University of Pennsylvania. Her teaching includes beginning and upper-level Chinese language courses, and other Asian-related courses, such as Chinese literature in translation. She is currently instructor of Tai Ji Quan (T'ai Chi Ch'uan), a Chinese martial art, in the physical education department. Her research is on the status of women in China; she continues practicing Chinese painting and calligraphy as a pastime.

Contributing Faculty:

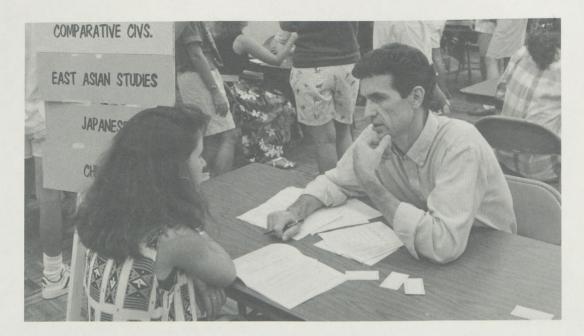
James W. Carson, Associate Professor of History T. Scott Smith, Associate Professor of Physics Beth A. Bullard, Artist Faculty in Music

Courses:

101. **Introduction to East Asia** An interdisciplinary study of East Asian civilizations. The course provides a framework for understanding by introducing students to traditional social and cultural patterns in East Asia and to the variety of transformations which have taken place there.

201. **Chinese Literature** The objectives of this course are two. The student will be enabled to grasp the various literary genres as they developed in Chinese history from earliest times to the present. The course will also explore how that literature reflected and directed Chinese cultural concepts.

202. **Japanese Literature** This course is an introduction to Japanese literature from its earliest written records up to the modern era. It will involve an inves-



tigation of the problems of critical literary analysis in a culture that has generated its own genres and forms as well as having borrowed extensively from those of its Chinese and Western neighbors.

203. **Studies in Asian Literature** Selected topics in East Asian Literature; e.g., Chinese Women in Literature, Modern Japanese Literature, Pre-Modern Japanese Literature.

204. **Studies in Asian Society and Culture** Selected topics in East Asian civilization; e.g., Japanese Women, Modern Japanese Culture, Japanese Architecture.

490. **Senior Research** Leading to a senior thesis and jointly supervised by at least two faculty in the program.

Major:

11 courses.

Required Courses:

East Asian Studies 101 History 120 Religion 130 Political Science 254 Japanese 211, 212 or Chinese 211, 212 East Asian Studies 490

Electives: (Students will select four of the following, no more than two from one group.)

1. Fine Arts 209
East Asian Studies 201
East Asian Studies 202
East Asian Studies 203

- Religion 201 (when topics relevant), Religion 202 Philosophy 246
- Japanese 231, 232
 Chinese 231, 232
 Advanced directed study in Chinese or Japanese
- 4. History 260
 History 261
 History 215 (when topics relevant)
 Political Science 290 (when topics relevant)
- East Asian Studies 204 (includes cross-listing with appropriate existing courses)
 Comparative Civilizations 105 (when topics relevant)
 Other courses in South or Southeast Asia

Economics

homas Malthus said almost 200 years ago, "Political economy is perhaps the only science of which it may be said that the ignorance of it is not merely a deprivation of good, but produces great positive evil." The department of economics offers a program of study designed to facilitate an understanding of our economy and other economic systems from divergent and critical perspectives. More specifically, the major provides a useful knowledge of the theoretical, statistical, and historical approaches to the study of a broad range of contemporary domestic and international economic problems and policy issues. These include such problems and issues as economic decision making, efficiency, unemployment, inflation, government spending, taxes, regulation, distribution of income, alienation, industrial concentration, foreign trade, and Third World poverty. In the classical liberal arts tradition, knowledge is seen as a guide to individual action and a means to improving the human condition as well as enhancing the individual.

The major in economics meets a broad range of individual needs in both career choices and graduate study. The graduate in economics will have acquired analytical skills, communicative capabilities, as well as statistical and computer skills which can provide entree to promising careers in either the private or public sectors.

Faculty:

A. Craig Houston, Professor of Economics. Ph.D., Pennsylvania State University. He has two emphases in his teaching. His interest in macroeconomics finds expression in the traditional introductory, intermediate macroeconomics, and banking courses. His interest in nonrenewable resources, technology, energy, land use, and the ecosystem is reflected in his ap-

proach to the history of economic thought and in environmental economics. He is currently working on the "two-culture" problem in economics and on decentralistic economics.

Charles A. Barone, Associate Professor of Economics. Ph.D., The American University. He specializes in international Third World and domestic U.S. political economy with special emphasis on race, class, and gender issues. He also has major interests in women's studies, U.S. economic decline, and policy alternatives for economic revitalization. (On leave Spring 1990)

Gordon Bergsten, Assistant Professor of Economics. Ph.D., University of California, Berkeley. He specializes in comparative economic systems and history of economic thought. Other interests include economic history and institutional economics. His current research is on the political economy of education.

William K. Bellinger, Assistant Professor of Economics. Ph.D., Northwestern University. His teaching interests include economic theory, labor economics, labor relations, and urban economics. Current research interests include the economics of collective bargaining and union behavior, and the economics of public policy.

Sinan Koont, Assistant Professor of Economics. Ph.D. in Economics, University of Massachusetts. His teaching interests include economic theory, econometrics, mathematical economics, economic development, and comparative economic systems. His current research interest is in growth models for socialist economics.

Michael J. Fratantuono, Assistant Professor of Economics. Ph.D., University of Washington. His teaching and research interests include microeconomic theory, international economics, and the Japanese economy.

100. Contemporary Economics A general introduction to the subject matter and analytical tools of economics as a social science, with particular emphasis on contemporary economic issues such as poverty, inequality, unemployment, inflation, international trade, environmental deterioration, economic growth, competition, and monopoly. Designed for those not intending to major in economics or who want to find out what economics is all about. This course does not count towards the major in economics. Students who have taken 111 and/or 112 cannot take this course for credit.

111. Introduction to Microeconomics A study of the fundamentals of economic analysis and of basic economic institutions, with particular emphasis upon consumer demand and upon the output and pricing decisions of business firms. The implications of actions taken by these decision-makers, operating within various market structures, upon the allocation of resources and the distribution of income are examined. Special attention is given to the sociopolitical environment within which economic decisions are made.

112. **Introduction to Macroeconomics** A study of the fundamentals of economic analysis and of basic economic institutions, with particular emphasis upon national output, employment, and price levels. The monetary and financial system is explored together with problems of economic stability. Monetary and fiscal policy procedures are analyzed and evaluated in light of the current economic climate. Special attention is given to the historical development of major economic institutions. *Prerequisite: 111*.

214. A Contemporary Economic Issue A current economic topic which has important public policy implications is examined. The topic, to vary from time to time, will be announced prior to registration. *Prerequisite:* 111 and/or 112 or 100 depending on the topic.

222. Environmental Economics A study of human production and consumption activities as they affect the natural and human environmental systems and as they are affected by those systems. The economic behavioral patterns associated with the market economy are scrutinized in order to reveal the biases in the decision making process which may contribute to the dete-

rioration of the resource base and of the quality of life in general. External costs and benefits, technological impacts, limits to economic growth, and issues of income and wealth distribution will be examined. A range of potential policy measures, some consistent with our life style and some not, will be evaluated. This course is also cross-listed as Environmental Studies 222. Prerequisite: 111 or 100.

223. Radical Political Economy An alternative analysis of capitalism from a critical perspective. Designed as an introduction to radical political economy through the study of Marx as well as more contemporary radical economists. Focuses on the analysis of such contemporary socioeconomic problems as corporate power, working class oppression, racism, sexism, poverty, economic stagnation, and imperialism. Socialism as an alternative to capitalism is briefly explored through the study of present day socialist experiences as well as contemporary radical visions of socialism in the U.S. NOTE: This course presupposes a basic familiarity with contemporary socioeconomic problems. *Prerequisite: Economy and Society or permission of the instructor.*

234. Economic Anthropology An anthropological approach to economic production and exchange. Focus on non-Western societies where production and distribution of goods are institutionalized within political, religious, and kin groups. Place of markets in societies cross-culturally. Strategies of economic development and the consequences for rural poverty. This course is taught by the Anthropology Department and cross-listed as 334. Prerequisite: 100 or 111/112. Anthropology 101 is recommended.

243. **The Economics of Labor Unions** This course will explore the determinants of labor union power, the nature of union goals and behavior, and the impact of unions on the economy, as well as recent issues affecting the labor movement. These fissues will be explored through a review of historical events, the labor relations systems of other countries, and U.S. labor law, as well as institutional and neoclassical economic theory. *Prerequisite: 111*.

248. **The World Economy** This course, designed for nonmajors, is less theoretical than Economics 348 and will focus on current trends, policies, and institutions. Topics to be explored include: the theory of free trade;



protectionism; the balance of payments and the international monetary order; the Common Market; trade policy and the Third World; imperialism and multinational corporations. Where appropriate a variety of viewpoints will be considered. *Prerequisite: 100. This course does not count toward the major in Economics, but qualifies for the minor.*

268. Intermediate Macroeconomic Theory Neoclassical theories of economic behavior in the aggregate. Models will be used as a framework for analyzing the determination of the level of national output and for explaining fluctuations in employment, the price level, interest rates, productivity, and the rate of economic growth. Policy proposals will be appraised. *Prerequisite: 111 and 112 and Math 121.*

278. **Intermediate Microeconomic Theory** Neoclassical theory of relative prices of commodities and productive services under perfect and imperfect competition. The role of prices in the allocation and distribution of resources and commodities. Economic be-

havior of individual economic units like consumers, firms, and resource owners. *Prerequisite: 112 and Math 161 or 151-152.*

288. Contending Economic Perspectives A study of heterodox economic theories including radical, post-Keynesian, institutional, steady state, and neo-Austrian economics. The historical evolution of these different perspectives will be traced and the core theory and methods of each will be appraised. *Prerequisite: 100 or 111/112*.

314. **Special Topics** See Economics 214 above. Special advanced topics. *Prerequisite: Economics 268 and/or 278 and/or 288 depending on topic.*

344. **Public Finance** Theoretical analysis of the interaction of the public and private sectors emphasizing problems of allocation and distribution. Topics will include economic rationales for government, public expenditure theory, redistribution of income, collective decision making, and taxation. Neoclassical ap-

Dickinson College Economics 65

proaches predominate, however, some alternative approaches will be explored. *Prerequisite: 278 or permission of the instructor.*

- 347. Money and Banking A study of the role of money and credit in the U.S. economy. The nature of money, the structure of the banking system in the context of a rapidly changing financial institutional environment, and the Federal Reserve System will be examined. Various theories of money as guides to monetary policy will be compared and contrasted. Neoclassical approaches will predominate, however, some alternative approaches will be explored. *Prerequisite:* 112 or 100. Recommended: 268.
- 348. **International Economics** An analysis of the determinants of international trade patterns, the causes and consequences of public policies to control trade, the operation of the international monetary system and its effect on national economies. In addition, rich and poor country relationships, theories of imperialism, and the emerging role of multinational corporations will be considered. While the neoclassical approach will dominate, alternative paradigms will be explored. *Prerequisite: 268 and 278.*
- 349. Political Economy of the Third World An analysis of the causes of and proposed solutions to world poverty from an international political economy perspective. Includes a study of the colonial legacy of the Third World, underdevelopment as a regressive process, alternative development strategies, social and political structures, and simple growth and planning models. Neoclassical, structuralists, dependency, and Marxist approaches will be explored. Designed for economics majors and other students interested in international studies and Latin American Studies. *Offered every other year. Prerequisite: 111 and 112, or 100.*
- 350. **Industrial Organization and Public Policy** A study of the relationships between market structure, conduct, and economic performance in U.S. industry. Emphasis will be on the manufacturing sector and specific industries will be examined. A brief introduction to antitrust and regulation will also be covered. Debate within the main stream will be examined. *Prerequisite:* 278.

- 353. **The Economics of Labor** An analysis of labor market issues and policies. Topics covered include discrimination, anti-discriminatation policy, the minimum wage, health and safety policy, and other labor market policies and institutions. While the neoclassical approach will dominate, other approaches will be explored. *Prerequisite: 278 or permission of the instructor.*
- 371. **Topics in Economic History** An introduction to a variety of controversial issues in European and American economic history. Topics include the transition from feudalism to capitalism, the effects of British mercantilist policies on the colonies, the economics of slavery, and what caused the Great Depression. Emphasis is on issues in 19th and 20th century U.S. economic history. A variety of theoretical perspectives will be explored. *Prerequisite: 111 and 112*.
- 376. Alternative Economic Systems A study of the goals and means of economic systems which are fundamentally different from our own. The systems considered will be both theoretical models, such as those of perfectly competitive capitalism and market socialism, and actual cases, such as the Soviet Union, China, Yugoslavia, Japan and Cuba. Countries studied varies. *Prerequisite: 111 and 112.*
- 378. **Managerial Economics** Application of theoretical concepts to decision-making processes of public and private enterprises. Focus on decision models, forecasting, measurement of demand, costs, production, and pricing policies. *Prerequisite: 278.*
- 473. **History of Economic Thought** A critical appraisal of the origins and evolution of significant economic theories. Selected writings will be analyzed in detail as representative expressions of major paradigms within the discipline. *Prerequisite: 111 and 112*.
- 474. **Econometrics** Theory and applications of multiple regression analysis. The specification and estimation of econometric models, hypothesis testing and interpretation of results. Emphasis will be on practical applications from macro- and microeconomics using both cross-section and time-series data. *Prerequisite:* 268, 278, Math 121 and 161 or 151-152.

66 Economics 1989-90 Catalogue

475. **Mathematical Economics** Selected topic, to be announced prior to registration, in theoretical or applied economics, using mathematical or statistical techniques. *Prerequisite: 268 and/or 278 plus Math 161 or 151-152 or permission of the instructor.*

495, 496. **Economics Seminar** A reading, research, and conference course on a selected economics topic. Student seminar choices must be approved by the department. *Prerequisite: 268, 278, and 288 or permission of the instructor.*

Major:

Economics 111, 112, 268, 278, 288, three other economics electives and a senior economics seminar are required for the major. Two of the economics electives must be at the 300 level or above. In addition, majors are required to take Math 161 (or 151-152) and Math 121.

Students who are considering the major should begin the introductory sequence their freshman year. The mathematics requirements must also be taken early in order to satisfy the prerequisites for the intermediate theory courses (see course description for 268 and 278 above). For more detailed scheduling information, see your faculty advisor's *Advising Handbook*. Prospective majors, as well as those planning graduate study in economics, should consult the department early concerning their course options.

Minor:

Six economics courses including 111 and 112 and four other economics electives.

Department Honors:

Any student with a 3.33 average in the major may undertake a two-course independent research project. Departmental honors will be awarded if the two courses are over and above the nine required courses, if a grade of A or A- is earned on the project, and if the departmental oral examination on the project is successfully completed.

Education

he education department is responsible for education courses for the general student as well as for the Certification Program in Secondary Education (grades 7-12). The department believes that students are best prepared for teaching by a thorough grounding in the discipline in which they will teach. The department builds upon the prospective teacher's knowledge of this subject matter in preparing him or her for the classroom experience.

The teacher education program consists of (1) basic coursework, and (2) the professional semester in teacher education. Certification programs include biology, chemistry, earth and space science, English, environmental education, French, German, Italian, Latin, mathematics, physics, and Spanish. Majors in American studies, anthropology, economics, history, political science, psychology, and sociology are eligible for the social studies certificate. Basic coursework consists of the following courses:

Psy. 111, Introduction to Psychology Ed. 221, Social Foundations of Education Ed. 331, Educational Psychology (Prerequisites: Ed. 221, Psy. 111)

Introduction to Psychology and Social Foundations should be completed by the first semester of a student's junior year. Educational Psychology should be taken immediately prior to the professional semester, so that students can begin to work with their cooperating teachers. Students interested in the program should make formal application to the program at the end of the fall semester of their junior year.

The professional semester consists of courses, practicums, full-time teaching and a professional seminar. The various components of the program are in keeping with Pennsylvania Department of Education standards, and are designed to develop the understandings, skills and sensitivities necessary for professional teaching.

Ed. 433, Educational Principles, Curriculum and Special Methods in Subject Areas



Ed. 434, Theory and Techniques of Teaching Modern Languages (one-half course for language majors)

Ed. 443, Educational Evaluation (one-half course)

Ed. 451, The Use of Instructional Media. (one-half course)

Ed. 461-462, Observation and Supervised Student Teaching

Faculty:

Carl A. Guerriero, Assistant Professor of Education. Ed.D., Pennsylvania State University. Teaching interests include curriculum and instruction in mathematics and science for secondary school teachers as well as testing and evaluation courses for teachers. His current research interest is in learning styles, particularly gender differences and hemispheric lateralization.

Robert W. Cavenagh, Jr., Director of Instructional Media, Part-time Associate Professor of Fine Arts and Education. Ed.D., Indiana University. Interests include learner control in computer managed instruction, photographic communication, communications technology. Research areas: Learner Control Issues.

Carmen G. Neuberger, Part-time Assistant Professor of Education. Ed.D. and J.D., The American University. Interests include educational law and family systems. Areas of specialization are higher education, student personnel administration, counseling, and psychological aspects of education. Current research is in legal aspects of education.

Courses:

221. **Social Foundations of Education** A survey of the legal, philosophical, political, and sociological contexts of American education. Students examine the ideals and the day-to-day practices of our system through introduction to research on the following top-

ics: competing definitions of an educated person, the univeristy and the community college, the comprehensive high school, school politics at the local, state, and national levels, the Supreme Court and desegregation, reform movements, and the teaching profession and teachers' unions.

- 331. **Educational Psychology** This course combines the psychological theories related to learning with current teaching practices in secondary school classrooms. Students will read and interpret educational research, review models of instruction and, visit nearby secondary schools to observe first hand the notions studied in the course. This latter activity involves pairing each student with a cooperating secondary school teacher thus restricting enrollment to those students applying to become teacher education candidates. *Prerequisite: Psy. 111, Ed. 221.*
- 391. **Topics in Education** Each semester this course is organized around several research topics, such as: literacy and numeracy, schooling in cities, the history of Western educational thought, the liberal arts curriculum, systems of schooling in European and Asian countries, graduate and professional schools, the testing industry, political education, and the Supreme Court and public schooling. *Prerequisite: permission of instructor; open to juniors and seniors.*
- 433. Educational Principles, Curriculum, and Special Methods in Subject Areas A practicum in the craft of teaching. Students learn and practice the planning, instructional, and managerial skills necessary for success as a student teacher. Extended visits to the classes of their cooperating teachers enable student teachers to prepare strategies appropriate for their subject areas and pupils. The course aims to develop a self-critical professional with an assured teaching repertoire. Prerequisite: 221, 331, and admission to the professional semester.
- 434. Theory & Technique of Teaching Modern Languages This one half-credit course will introduce students to theoretical and practical aspects of teaching modern languages, with special emphasis on their place in public schools. Students will study the history of language teaching, linguistics, and second-language acquisition theories as well as the approaches, methods, and strategies in language instruction. The instructor will observe and consult

with students during the students' teaching practicum. Prerequisite: 221, 331, and admission to the professional semester: one-half course.

- 443. Educational Evaluation An introduction to evaluation principles and techniques focusing upon both teacher-constructed tests and standardized measurement instruments including testing terminology, types of instruments, selection procedures, and techniques for administering, scoring, tabulating, and interpreting test data. Concepts related to reading in the content area will be included in this course. *Prerequisite: 221, 331, and admission to the professional semester: one-half course.*
- 451. **The Use of Instructional Media** An introduction to devices, techniques and media available to today's educator. Computer use is an important course component, as are video and more traditional media. Students prepare materials and gain experience through clinical workshop sessions. *One-half course*.

461-462. Supervised Student Teaching and Observation Observation and supervised student teaching is done at nearby cooperating public secondary schools in the student's area of specialization on a full-time basis for eight weeks. This field experience is under the direction of college and public school advisory personnel. Seminars in teacher education are conducted by the director of teacher education, who is responsible for assignments. Travel and personal expenses incurred are the responsibility of the student. Two full courses. Prerequisite: 221, 331, admission to the professional semester, and successful demonstration of necessary teaching competencies in 433, 443, and 451.

Major:

Upon completion of the professional semester, students receive Pennsylvania's secondary school (grades 7-12) certification in their subject areas. Pennsylvania has reciprocity agreements of one kind or another with 28 other states. The department does not offer a major or a minor. Since Pennsylvania is in the process of changing some of its certification requirements, students interested in the program should contact Professor Ramsay during the first semester of their sophomore year.

Dickinson College Education 69

English

ost students come to a liberal arts college in hopes of broadening their perspectives, and the English department offers them access to many of the richest and most varied "worlds" our language can describe. The skills taught—whether they involve ways of arriving at a clear and valid understanding of what Shakespeare said 400 years ago or ways of putting together a coherent argument today—are quite simply those needed to understand how language both reflects and shapes human experience.

At the core of the department's curriculum is a group of five courses, designed to ensure that students gain a sound background in literature to prepare them for more advanced offerings. Work in the core courses, all of which are required for English majors, includes reading works of major British and American authors, learning various critical approaches to literature, and understanding the cultural and historical backgrounds of each literary period. The development of sound writing skills is also one of our primary goals, both in literature courses and in the complete sequence of expository and creative writing courses which we offer. All majors participate in a tutorial or seminar, usually in their senior year, which gives them the chance to work closely with a faculty member on a subject of particular interest.

The majority of our offerings are, of course, open to students other than English majors, and the department encourages nonmajors to broaden their cultural and linguistic horizons by taking one or more of our classes. The curriculum tries to help students to develop analytical skills in writing and critical thought, skills which are useful for college work as well as in the world beyond the classroom.

Faculty:

Kenneth M. Rosen, Professor of English. Ph.D., University of New Mexico. He specializes in contemporary American literature. His research has centered on Ernest Hemingway and American Indian literature.

Sharon O'Brien, Professor of English and American Studies. Chair. Ph.D., Harvard University. Her teaching specialty is American literature of the 19th and 20th centuries. Research interests include women writers, popular culture, feminist theory, and the relationship between literature and society.

Dorothy W. Culp, Associate Professor of English. Ph.D., Columbia University. Her teaching interests include Renaissance, restoration, and 18th century literature and computer assisted writing courses. Current research interests focus on the presentation of love in Renaissance lyric, narrative, and drama.

William A. Harms, Associate Professor of English. Ph.D., Indiana University. His primary field is 19th and 20th century English and European literature. Most recently he has turned to modern drama and the special teaching problems of relating theatre to literature. Additional interests include Irish literature and the comparison of literature to the other arts.

Thomas L. Reed, Jr., Associate Professor of English. Ph.D., University of Virginia. His field is medieval literature, with special emphasis on Chaucer and aesthetic theory. Other research interests include Chaucer's influence on Shakespeare.

David L. Kranz, Associate Professor of English. Ph.D., University of California at Berkeley. His scholarship focuses on Shakespeare, in particular the playwright's representation of classical Rome and manipulation of audience. Other interests include psychological criticism, contemporary literary theory, English pedagogy, and film.

Robert P. Winston, Associate Professor of English. Ph.D., University of Wisconsin at Madison. He specializes in American literature before 1914, especially the development of the early American novel. His current research focuses on the relationships between popular literature, especially detective fiction, and national cultures. (Director of the Dickinson Humanities Program in England, 1988-90)

Robert D. Ness, Associate Professor of English. Ph.D., University of North Carolina at Chapel Hill. He teaches Restoration and 18th century English literature, linguistics, and African and Commonwealth literatures. His research interests focus upon litera-



ture, politics, music, and other arts during the first half of the 18th century in England. (On leave 1989-90)

K. Wendy Moffat, Assistant Professor of English. Ph.D., Yale University. The subject of her research is the modern novel. Her special interests are 20th century British fiction and literary theory.

Ashton Nichols, Assistant Professor of English. Ph.D., University of Virginia. His field is 19th century British literature, with special emphasis on Romantic and Victorian poetry. His current research focuses on the relationship between the lyric and other genres.

Mark Winokur, Assistant Professor of English. Ph.D., University of California at Berkeley. His primary interest is American literature and film.

Robert Olmstead, Writer-in-Residence. M.A., Syracuse University. His primary interest is in prose fiction, and he leads the creative writing workshops. He is the author of *River Dogs*, a collection of short fiction and *Soft Water*, a novel. His work has appeared in *Granta, Black Warrior Review*, and *Graywolf*. He is the adviser to the *Dickinson Review*.

Judy Gill, Instructor in English. M.A., Cornell University. Areas of interest include writing and rhetoric and contemporary American fiction.

Liza Wieland, Assistant Professor of English. Ph.D., Columbia University. Her research is in Emily Dickinson and American poetry.

Margaret Garrett, Part-time Assistant Professor of English. Ph.D., The George Washington University. Her primary interest is Victorian and Edwardian England.

Dickinson College English 71

- 100. **English Composition** Closely supervised practice in effective writing with emphasis on basic skills. Small group tutorials or individualized instruction. *Does not count toward an English major.*
- 120. **Introduction to Literature** Reading and analysis of poetry, drama, fiction, and non-fictional prose, selected from a range of chronological periods.
- 121. **Topics in Literature** Selected topics in English, American and non-Western literatures in English. Topics may include 20th century poetry and fiction, the short story, images of women, the quest, the political novel, the African novel, and Commonwealth literature.

Core Courses (201-205):

Designed to expose the student to a broad range of English and American literature and literary criticism, these courses will each stress the development of sound reading and writing skills. Close attention will also be given to the precise formal and generic character of each work and its relationship to a particular historical and cultural milieu.

- 201. **Medieval Literature** The literature of Medieval England, including Beowulf, samples of the earliest English drama, and the works of the Gawain poet, Chaucer, and Langland.
- 202. **Renaissance Literature** The literature of Renaissance England, including the poetry of Sidney, Spenser, Shakespeare, Donne, and Jonson, and selected plays of Shakespeare and his contemporaries.
- 203. **Restoration and 18th Century Literature** English literature from the restoration of Charles II to the death of Johnson, including works by Milton, Dryden, Swift, Pope, and Johnson.
- 204. **19th Century Literature** The literature of the Romantic and Victorian periods, stressing the work of Wordsworth, Tennyson, and Arnold; other writers studied include Austen, Dickens, George Eliot, and Hardy.

- 205. American Literature An introduction to a limited number of American literary figures, including Emerson, Hawthorne, Twain, James, Fitzgerald, and Faulkner, with emphasis on pre—20th century literature.
- 211. Expository Writing A course in expository prose which focuses on the writing process itself, emphasizing the organization of ideas and development of style. Seminars, group tutorials, or individual instruction.
- 212. **Writing: Special Topics** A course in analytical thinking and writing which develops expository skills through the exploration of such topics as Popular Culture, the Short Story, Sport in American Life, and Journalism. May include research papers, seminars, and workshops.
- 213. History and Structure of the English Language The origin and growth of British and American English, along with a survey of grammatical notions and methodologies from the traditional to the transformational.
- 218. **Creative Writing** A workshop on the writing of fiction, poetry, and/or drama.
- 312. Advanced Expository Writing Recommended for students with demonstrated competence in writing skills, this course pays special attention to sophisticated critical analysis, development of ideas, and style. Prerequisite: Permission of the instructor on the basis of a writing sample.
- 319. Advanced Creative Writing Writing and discussion of fiction, poetry, and/or drama, with emphasis on editorial adaptation for the literary marketplace. *Prerequisite: 218 and the permission of the instructor.*
- 322. **Topics in English Literature** Topics may include Irish Literature, The Romance, Literary Theory, Shakespeare on Film. *Prerequisite: any core course.*
- 323. **Topics in American Literature** Topics may include American Indian Novels, The Frontier and the West, Autobiography, Women Writers. *Prerequisite*: 205.

72 English 1989-90 Catalogue

- 328. **Practical Literary Criticism** A workshop course in which formal and stylistic characteristics of drama, fiction, and poetry are examined together with the dominant schools of literary criticism. The format requires close textual analysis of several works and teaches students to generate their own evaluative standards. *Prerequisite: any core course.*
- 331. Advanced Studies in Medieval Literature Topics may include The Medieval Romance, The Literature of "Courtly Love," Medieval Drama, or an interdisciplinary subject such as Images of Death in the Art and Literature of the Middle Ages. *Prerequisite: 201*.
- 336. Chaucer The poet and his century, with emphasis on *The Canterbury Tales. Prerequisite: 201.*
- 341. Advanced Studies in Renaissance Literature Topics may include The World of The Faerie Queene; The Image of Women in Romance Fiction; Marlowe and Spenser; Tragedy; 17th Century Poetry: The Age of Revolution; Donne and Jonson. *Prerequisite*: 202.
- 342. **Renaissance English Drama** Plays from the Tudor and Stuart periods with emphasis on Marlowe, Jonson, Webster, and Shakespeare. *Prerequisite: 202.*
- 346, 347. **Shakespeare** A selection of plays in every period and genre of the canon—early, romantic, and dark comedies, English history plays, Roman plays, tragedies, and romances—and a sampling of critical approaches to the plays. Different selections in successive semesters. *Prerequisite: 202.*
- 351. Advanced Studies in Restoration and 18th Century Literature Topics may include English Satire and the Classical Tradition; Comedy; Pope and Swift; Johnson, Boswell, and the Art of Biography; 18th Century Literature: An Interdisciplinary Approach. *Prerequisite: 203*.
- 356. **Milton** Detailed study of the poetry and prose with emphasis on the social and historical background and on the development of Milton as a poet. *Prerequisite: 203.*

- 361. Advanced Studies in 19th Century Literature Topics may include: The Rise of the Victorian Novel; Aestheticism and Decadence; Early and Later Romantic Poetry; Romantic and Victorian Epic; 19th Century "Women's Fiction." *Prerequisite: 204.*
- 363. **The English Novel** The Development of the novel as a genre, emphasizing major works from the 18th and 19th centuries; close attention to novels by Defoe, Richardson, Fielding, Sterne, Eliot, James, and others. *Prerequisite: 203 or 204*.
- 372. **The Modern British Novel** A study of the major writers in the Anglo-Irish modernist tradition, with emphasis on works by Conrad, Ford Madox Ford, Forster, Woolf, Joyce, Laurence, and others. *Prerequisite: any core course.*
- 382. **The American Renaissance**, **1830-1888** Selected works by Emerson, Poe, Hawthorne, and Melville will be emphasized. *Prerequisite: 205*.
- 384. **American Poetry** The development of poetry in America from Anne Bradstreet to the present with emphasis on selected works by Whitman, Dickinson, Frost, Stevens, Williams, cummings, and others. *Prerequisite:* 205.
- 385. **The American Short Story** The development of the short story in America from Irving to the present with emphasis on selected works by approximately ten practitioners of the form. *Prerequisite: 205.*
- 386. American Novel The development of the novel in America from Charles Brockden Brown to the present with emphasis on selected works by James, Twain, Melville, Fitzgerald, Hemingway, and Faulkner. *Prerequisite: 205.*
- 388. **American Drama** A study of American dramatic literature with emphasis on the works of O'Neill, Miller, Williams, Jones, and Albee. *Prerequisite: 205.*
- 391. Advanced Studies in Contemporary Literature Topics may include British novels, American novels, British and American poetry, women writers, World War II and literature, minority literature. *Prerequisite: the appropriate core course.*

Dickinson College English 73

393. **Modern Poetry** Close readings of early 20th century poems, often with special attention to the Modernist tradition in American and British poetry; principal poets may include Hardy, Yeats, Eliot, Pound, H.D., William Carlos Williams, Auden, and Stevens. *Prerequisite: any core course.*

396. **Modern Drama I** The formative period of 20th century drama; plays by Ibsen, Chekhov, Strindberg, Shaw, Synge, Pirandello, and others. *Prerequisite: any core course.*

397. **Modern Drama II** Drama from 1930 to the present; plays by Brecht, Anouilh, Ionesco, Eliot, Beckett, Pinter, Stoppard, and others. *Prerequisite: any core course.*

Tutorial and Seminar Courses (406-410):

These courses give the student an opportunity to demonstrate, under the close supervision of a professor, a mastery of the reading and skills expected of a major. Seminars are limited to 15 students and require regular class participation, leading to the completion of a major paper. In tutorials, two students study one (or two) major authors, and alternate in reading papers at a weekly session with the instructor.

406. Tutorial in English Literature Prerequisite: permission of the instructor; open to junior and senior majors who have completed the core courses in English literature.

407. Seminar in English Literature Prerequisite: open to juniors and seniors who have completed the core courses in English literature.

408. Tutorial in American Literature Prerequisite: permission of the instructor; open to junior and senior English and American Studies majors who have completed two core courses, one of them being 205, and a 300-level course in American literature.

409. Seminar in American Literature Prerequisite: open to juniors and seniors who have completed two core courses, one of them being 205, and a 300-level course in American literature.

410. **Seminar in Creative Writing** Prerequisite: permission of the instructor; open to juniors and seniors who have completed 218 and 319.

Major:

Ten courses, including the five core courses; at least four must be above the 200 level, including one seminar or tutorial. When students declare a major, they and their faculty advisers will design a schedule for completing the core courses (usually by the middle of the junior year) while also pursuing their interests in appropriate upper-level courses. Transfer students and others who need a special schedule for completing these courses must have their program approved by the chairperson.

Minor:

Six courses, including five courses in literature: three core courses and at least two other literature courses above the 200 level.

Independent Research and Independent Study:

Independent research that may lead to Honors is open to juniors and seniors who have achieved a grade point average of 3.25 in English, and who wish to study a specific author, period, or theme of literature. Special study that may lead to Honors in creative writing is also available. Independent studies in both literature and writing are offered, and the department distributes a list of professors and their specialties to assist students in developing projects. Proposals are usually submitted during the semester before the study is undertaken.

Teacher Certification:

Majors who wish to secure teacher certification must take the following courses, preferably before enrollment in the professional semester of teacher education: a. English 211 or 212 b. English 213 c. English 312

Environmental Studies

he Environmental Studies Program offers courses designed to give students a background in: (1) the natural processes working at the surface of the earth to provide a basis for evaluation and control of environmental quality, (2) the philosophical and historical basis of man's relationship to those processes, and (3) the economic and political basis for decision making in regard to environmental problems. All courses are interdisciplinary in nature, content, and approach and attempt to provide models for future alternatives. In addition to the courses listed below, there are special courses directly related to environmental studies offered by various departments from time to time.

Students may create a self-developed major in environmental studies or they may earn a certificate with a coordinate option of study. For the majority of students the certification program offers the best combination of career opportunities and environmental interests. Discussions with potential employers and graduate schools indicate that they would prefer a firm background in a regular major which represents depth in some field, supplemented by courses relevant to environmental issues of interest to the individual student.

The Environmental Studies Certificate is an interdisciplinary venture involving students and faculty from throughout the College, recognizing that study of the environment involves all disciplines and professional fields. While the program attempts to serve a wide array of environmental interests, its primary focus is tailored to the individual student. The program combines study of the environment with a traditional disciplinary major and offers students three alternatives. Environmental Studies 111, 131, 132, 222, and 406 form the required core for the certificate. Five other courses are required for the thematic concentration. Courses are selected from one of the three areas or divisions of the major. Students majoring in the humanities field select appropriate courses from that

area and their certificate will have a thematic concentration designated "Humanistic Perspectives on the Environment." Majors in the social sciences select a thematic concentration which is termed "Environment and Society," and those from the natural sciences acquire a concentration in "Environmental Science." An Environmental Studies Advisory Group of faculty with interdisciplinary interests assists students in planning an individualized program of studies which combines a broad, comprehensive understanding of the environment with depth in a specific discipline or profession leading to a future career.

The program is valuable to students planning to go to graduate and law school and to those pursuing careers in private industry, consulting firms, government agencies, and education.

Faculty:

Candie C. Wilderman, Associate Professor of Environmental Science. Ph.D., Johns Hopkins University. Her specialties are environmental science, aquatic systems, and paleolimnology. Her current research is mainly concerned with using diatoms as indicators of past and present environments. Her current projects include research on the rate and magnitude of acidification of local freshwater systems as a result of acid deposition, and coordination of a statewide citizens stream monitoring program.

Contributing Faculty:

Daniel R. Bechtel, Professor of Religion Kiell I. Enge, Assistant Professor of Anthropology Susan M. Feldman, Associate Professor of Philosophy Jeffrey W. Niemitz, Associate Professor of Geology Janet Wright, Assistant Professor of Biology Paul Biebel, Professor of Biology Neil S. Wolf, Professor of Physics

Environmental Studies Advisory Committee:

Daniel R. Bechtel, Professor of Religion A. Craig Houston, Professor of Economics John W. Luetzelschwab, Professor of Physics Susan M. Feldman, Associate Professor of Philosophy Noel Potter, Jr., Professor of Geology Kjell I. Enge, Assistant Professor of Anthropology

Eugene W. Hickok, Jr., Assistant Professor of Political Science

John C. Stachacz, Librarian Jeffrey W. Niemitz, Associate Professor of Geology Janet Wright, Assistant Professor of Biology

Courses:

- 111. **Environment, Culture, and Values** A study of the effects of scientific, religious, and philosophical values on man's attitudes toward his environment and how these attitudes may affect our way of life. By focusing on a particular current topic, and by subjecting the basis of our behavior in regard to that topic to careful criticism, alternative models of behavior are considered together with changes in lifestyle and consciousness that these may involve.
- 131, 132. Environmental Science An integrated, interdisciplinary study of natural environmental systems and man's impact on them. Basic concepts of ecology and energy will be examined and utilized to study world resources, human population dynamics, pollution, and pollution control. Field study will be emphasized. Three hours classroom and three hours laboratory a week. (131, 132 will satisfy the one-year laboratory science distribution requirement.)
- 203. Economic Geology Prerequisite: Geology 131, 132 or Environmental Studies 131, 132. This course is also cross-listed as Geology 203.
- 214. Ecological Anthropology This course is also cross-listed as Anthropology 214.
- 220. Environmental Geology Prerequisite: Geology 131, 132 or Environmental Studies 131, 132. This course is also cross-listed as Geology 220.
- 221. Oceanography Prerequisite: one year of a laboratory science. This course is also cross-listed as Geology 221.
- 222. Environmental Economics Prerequisite: Economics 100 or 111. This course is also cross-listed as Economics 222.

- 260. Contemporary Science: Nuclear War and Peace This course is also cross-listed as Science 260.
- 310. Special Topics in Environmental Science An interdisciplinary, intermediate-level approach to the study of environmental problems. The course is project-centered, and students will bring the experience and perspectives of their own disciplinary major to bear on a team approach to the analysis and proposed resilution of an environmental problem. Topics will vary depending on the interests of the faculty and students, and on the concern of the time. Such environmental issues as environmental impact assessment, ecosystem restoration, biological diversity, global climate changes, wetlands, aquatic systems management, public lands policy, sustainable agriculture, deforestation, and principles of resource management are examples of topics that could be considered. Three hours classroom and three hours laboratory a week. Prerequisite: 131, 132.
- 314. **Ecology** Prerequisite: Biology 111, 112, 210 or Environmental Studies 131, 132. This course is also cross-listed as Biology 314.
- 322. Field Study of Plants Prerequisite: Biology 111, 112, 210 or Environmental Studies 131, 132. This course is also cross-listed as Biology 322.
- 406. Seminar in Advanced Topics in Environmental Studies An integrative seminar devoted to the study of the interdisciplinary techniques and approaches common to environmental problems and an evaluation of these approaches. Students will read primary literature, conduct and participate in discussions, learn how to define and execute independent research, and participate in a group research project. The topic will vary depending on faculty and student interests as well as scholarly concerns in the field. *Prerequisite: Permission of the instructor*.

Financial and Business Analysis

ne or more of the courses listed below may be of value to the student who seeks partial preparation for a career in business, law, or government service. These courses are designed to develop skills which complement those learned in a wide array of other courses offered by the College.

Courses in financial and business analysis are electives and do not constitute a special program of study at the College; they provide a means of enhancing specific skills but must be integrated into a more comprehensive program of study to be meaningful. Preprofessional preparation in business, law, and government service primarily requires a sharpening of abilities in written and oral communication; investigation of a wide range of values and beliefs; training in scientific methods of analysis and measurement; study of the logic of mathematics, statistics, and computer science; exploration of human institutions and the natural environment; and an understanding of and practice in various modes of creative, artistic expressionin other words, a liberal education.

Studies have consistently shown that, beyond the lowest professional levels, it is the liberal arts graduate, the broadly trained, sensitive, and creative person who is in command of sophisticated analytical and communicative abilities, who succeeds in business, government service, and other careers.

Students who have developed specific career objectives and who think that one or several business and financial analysis courses may be useful, then, should carefully plan a well-balanced program of study in consultation with faculty advisers and preprofessional advisors for business, law, and government service.

Faculty:

Trevor L. McClymont, Lecturer in Financial and Business Analysis. M.B.A, Andrews University; C.G.A. (Certified General Accountant) Ontario, Canada. He specializes in accounting and other business-



related subjects. Prior to going into teaching he was employed for 12 years with various business firms as manager of financial planning and analysis and as controller. He is interested in the behavioral implications of accounting and contemporary business issues.

Courses:

214. A Contemporary Issue A current topic which has significant implications in the public or private policy area. The topic, to vary from time to time, will be announced prior to registration. This course does not count toward distribution requirements.

227. Principles of Management The concepts and principles of organization and management are examined. The knowledge and skills needed for planning, organizing, leading and controlling modern organizations are studied. The student also studies the plans and techniques necessary for analyzing business situations; management by objectives; and managerial decision making for achieving organizational goals. This course does not count toward distribution requirements.

- 229. **Financial Accounting** Study of the basic concepts of accounting, their significance and use. Theories and principles in recording, summarizing, reporting, and analyzing financial data. Procedures and techniques relating to income determination, asset valuation, flow of funds, and financial statement presentation. *This course does not count toward distribution requirements*.
- 230. Managerial Accounting Study of the concepts and application of accounting from the procedural and managerial approach. The accumulation of cost data for planning, controlling, and decision making. Providing information needs of internal management with emphasis on cost behavior. Prerequisite: 229. This course does not count toward distribution requirements.
- 235. Managerial Finance An introduction to principles of financial management including concepts of risk, return, capital asset pricing model, working capital, capital budgeting, debt/equity financing, cost of capital, and dividend policy. *Prerequisite: 229. This course does not count toward distribution requirements.*
- 238. Investment Analysis and Portfolio Theory Focus on private and government securities markets. Technical and fundamental theories of investment analysis. Portfolio theory and policy for individuals and institutions. Prerequisite: Economics 112; Financial and Business Analysis 235 recommended. This course does not count toward distribution requirements.
- 361. **Intermediate Accounting** An intensive study of general accounting principles and related matters pertaining to concepts and use of financial statements. Systematic and critical examination of the major items in financial statements with consideration as to alternative methods of recording and presenting accounting data. *Prerequisite: 229. This course does not count toward distribution requirements.*
- 362. Cost Determination and Analysis An intensive study of the principles, policies, and procedures for determination of unit costs of goods and/or services as applied to profit and nonprofit organizations. Advanced coverage of cost flows for product costing, budgeting, and profit contribution analysis. Prerequisite: 230. This course does not count toward distribution requirements.

Fine Arts

he liberal arts, as their name implies, are fields of study which nurture the mind's freedom. Freedom—to know, to choose, to act—is one of our culture's most cherished ideals, and it endures in a special way in the activity of the artist. That repressive societies attempt to control or suppress the artist's work is no accident; this work stands for the very possibility of freedom, in the mind's ability to envision and motivate the making of tangible alternatives to ordinary experience.

Contemporary culture takes for granted the liberating effect of verbal literacy, but all too often visual literacy has been neglected, and therefore misunderstood or ignored as an exercise of intellectual freedom. This area encompasses the visible environment we create for ourselves no less than the inner world of the imagination. At Dickinson we give full value to the sense of living tradition and the special problemsolving skills to be acquired from an understanding of the artist's work; thus, we seriously study art, historically as well as through actual making.

The art history program offers general overviews and in-depth analyses of art and its context, from its origins more than 27,000 years ago to its very latest manifestations. An extensive slide collection (90,000 transparencies) enables us to study this history by means of full and appropriate illustrations. In addition, the Trout Gallery provides a growing collection of actual works as well as a regular exhibition schedule to allow students a first-hand acquaintance with and study of art. Students also benefit from internship opportunities at the gallery, and at museums in Carlisle, and in the Philadelphia, Baltimore, and Washington, D.C., areas.

The studio program, encompassing instruction in the principles of two- and three-dimensional art, puts the student in direct contact with artistic thinking, with its mixture of disciplined technical and formal decision making, and open-ended, inventive experimentation. Areas of special emphasis are drawing and painting, ceramics and sculpture, graphics and photography, each of which poses its own challenges and provides its own remarkable satisfactions.

78 Fine Arts 1989-90 Catalogue

Students graduating with a major in fine arts have become scholars in colleges and universities and teachers in the elementary and secondary schools. They also have become museum curators, professional photographers, ceramicists, medical illustrators, and art therapists. In each case these young professionals became broadly educated in, and perceptually enriched and articulate about, the language of art.

Faculty:

Dennis Akin, Professor of Fine Arts. M.F.A., University of Colorado. Teaches courses in painting, design, printmaking, stained glass, and art history from the early 15th century to the present. Professor Akin is an artist who makes paintings concerned with the idea of "color in the air." (On leave Spring 1990)

Sharon Hirsh, Professor of Fine Arts. Chairwoman. Ph.D., University of Pittsburgh. Her scholarship and teaching centers on the art of the 19th and 20th centuries. She is a scholar of the work and symbolism of the Swiss artist Ferdinand Hodler. Her current research is on Symbolist and Dadaist art.

Barbara Diduk, Associate Professor of Fine Arts. M.F.A., University of Minnesota. Professor Diduk is an active artist who exhibits nationally; working primarily in stoneware, her emphasis is on the production of functional ceramics. She teaches courses in ceramics, three-dimensional design, and photography. (On leave Fall 1989)

Debra Israel, Assistant Professor of Fine Arts. Ph.D., Bryn Mawr College. Professor Israel primarily teaches courses in medieval and Renaissance-baroque art. Current research is on early Christian Roman architecture of the 6th century.

Jeremy Jernegan, Assistant Professor of Fine Arts. M.F.A., San Jose State University. He is a sculptor whose ceramic drawings and constructions blur the distinctions between painting and sculpture. Exhibiting nationally, he was previously teaching at California State University at Long Beach. He teaches ceramics, ceramics sculpture, three-dimensional design and photography.

David Robertson, Part-time Associate Professor of Fine Arts. Ph.D., University of Pennsylvania. Profes-

sor Robertson teaches courses on art historical methods, the northern Renaissance, and Michelangelo. He also supervises internships in the Trout Gallery. Current research is on the 15th-century painter and sculptor, Michael Pacher. (On leave 1989-90)

Susan F. Nichols, Part-time Instructor in Fine Arts. M.A., University of Iowa. Her primary field of study is painting and drawing.

Contributing Faculty:

Harry D. Krebs, Associate Professor of East Asian Studies

Robert W. Cavenagh, Jr., Part-time Associate Professor of Fine Arts and Education

Courses:

101, 102. An Introduction to the History of Art A survey of painting, sculpture, and architecture created by the world's leading civilizations. In 101, examples are chosen from prehistoric, primitive, ancient, and medieval European art. In 102, the arts of western Europe, beginning with the Renaissance, are considered. (Either course satisfies Div. I distribution requirement.)

121. Fundamentals of Painting and Two- Dimensional Design A studio course for those wishing to begin the process of self-expression in visual terms, or for those wanting to find out more about the creative processes of artists. Carefully sequenced problems are solved emphasizing two-dimensional solutions in a variety of media.

123. Fundamentals of Sculpture and Three-Dimensional Design A studio course which explores design through the examination of three-dimensional form and sculpture. Various building methods and materials will be introduced as a means of illustrating concepts of form, space, composition, color, and design.

125. **Drawing** The course will be devoted to working from the human form during which the students will be expected to develop a sense of two-dimensional line and three-dimensional illusionistic form through the use of such graphic media as pen and ink, pencil, charcoal, Conté crayon, etc. *Prerequisite: 121 or 123*.



160. **Special Topics in Studio** Selected techniques and concepts in studio, taught at the introductory level. The content of each course will be altered periodically.

201. **History and Art of the Film** A study of the history of the film as an art form, with emphasis on developing fruitful critical standards for the judgment of films. (*This course satisfies the Div. I distribution requirement.*)

202. **Ancient Art** The art and architecture of ancient Egypt, Mesopotamia, Greece, and Rome are considered, with major emphasis on the art of Greece and Rome. *Prerequisite: 101 or 102.*

203. **Medieval Art** European art and architecture of the Middle Ages, from the decline of the Roman Em-

pire to the 14th century. Particular emphasis is placed on early Christian, Romanesque, and Gothic art. *Prerequisite: 101*.

204. American Art The development of painting, sculpture, and architecture in America. Special consideration will be given to the problem of what constitutes an American style in the arts, as well as recent, specifically American, developments in 20th century art. *Prerequisite: 101 or 102, or American studies majors.*

209. **Studies in Oriental Art** (in different semesters: Indian, Buddhist, Chinese, Japanese, other) An introduction to the artists and art forms originating in Asian civilizations. Particular emphasis is placed on the formative role of the aesthetic spirit and its intimate relation to the civilizational context. (*This course satisfies the Div. I distribution requirement.*)

- 221. **Photography** An entry-level course in blackand-white photography. Film developing and the making of prints using conventional media, and an exploration of other media and processes which may include high contrast, large format, hand-tinted works, introductory color and alternative processes. The student will be required to demonstrate attainment of skill through portfolios presented to the class.
- 223. **Ceramics** Ceramics processes and techniques utilized by working with highfire and lowfire clay and glazes. Emphasis is given to expressive possibilities of working with the potter's wheel and in shaping clay with the hands into pottery and sculptural forms.
- 225. Introduction to Artists' Media and Techniques Experimentation with various media and techniques used by visual artists, including drawing with silverpoint, gessoing and gilding panels, grinding natural pigments, painting with watercolor, egg tempera, encaustic, oil, and fresco. Open to all art history and studio art majors. Art history majors should have prerequisite of 101 and 102; studio art majors should have 121 or 123. This course does not satisfy the distribution requirement. Offered every other year.
- 301. Italian Renaissance Art Italian painting, sculpture, and architecture of the 15th and 16th centuries will be considered. The works of Ghiberti, Donatello, Brunelleschi, Masaccio, Leonardo, Piero della Francesca, Raphael, and Michelangelo will be reviewed in some detail. Theoretical and critical writings of the period will be discussed. *Prerequisite: 101 and 102 or permission of the instructor.*
- 302. Northern Renaissance Art A study of the art of northern Europe in the 15th and 16th centuries, with particular emphasis on Germany and Flanders. Special consideration is given to the work of Durer, Grunewald, Cranach, and Altdorfer and to that of Hubert and Jan van Eyck, Roger van der Weyden, Memling, Bosch, and Bruegel. *Prerequisite: 101 and 102 or permission of the instructor.*
- 303. **Baroque Art** European painting, sculpture, and architecture of the 17th century will be considered. Particular emphasis will be placed upon the works of Caravaggio, the Carracci, Bernini, Borromini, Rubens, Rembrandt, Vermeer, Velasquez, and Poussin.

- Critical and theoretical writings of the period will be discussed. *Prerequisite: 101 and 102 or permission of the instructor.*
- 313. **19th Century Art** Problems of neo-classicism, romanticism, and realism. Major 19th century European figures and movements will be surveyed, including David, Goya, Friedrich, the Nazarenes, Constable, the PRB, Delacroix, Corot, Courbet, Manet, and the Impressionists. Critical and theoretical writings of the period will be discussed. *Prerequisite: 101 and 102 or permission of the instructor.*
- 314. **20th Century Art** A survey of major artists and movements from 1880 to the present, including post-impressionism, expressionism, cubism, futurism, de Stijl, suprematism, dada, surrealism, abstract expressionism, pop art, and current trends. Critical and theoretical writings of the period will be discussed. *Prerequisite:* 101 and 102 or permission of the instructor.
- 321. **Painting** Various painting media will be explored including oils, watercolor, and acrylic. *Prerequisite:* 121.
- 323. **Sculpture** Various sculpture media will be explored including clay, plaster, wood, stone, and metals. An emphasis will be placed on carving, casting, and metal welding. *Prerequisite: 123*.
- 325. **Printmaking** Various printmaking media will be explored including woodcut, silkscreen, and etching. *Prerequisite: 121 or 123*.
- 360. **Advanced Studio** Selected advanced studio techniques and concepts. The content of each course will be altered periodically. *Prerequisite: 121, 123 or permission of the instructor.*
- 391, 392. **Studies in Art History** Studies in selected topics of the history of art and architecture. The content of each course will be altered periodically. *Prerequisite:* 101 and 102 or permission of the instructor.
- 404. **Seminar: Topics in the History of Art** Advanced investigation of a particular artist, work, movement, or problem in the history of art. *Prerequisite: permission of the instructor.*

Dickinson College Fine Arts 81

407. **Art Historical Methods** Study of the research tools and methodologies of art historical analysis, a study of the use of sources, secondary courses, and documents in art history. In addition, the major schools of art historical writing and theory since the Renaissance will be considered. The course has as its final project an exhibition curated by the seminar students. *Prerequisite: 101 and 102, as well as other upperlevel courses on art of the Renaissance to the present.*

Museum Studies and Internship:

A two-semester academic program designed to introduce the student to the responsibilities and procedures of museum work. Offered by special arrangement with various area museums. Consult with the chairperson of the fine arts department and the internship coordinator. One course credit per semester.

Major:

Option one, with emphasis in art history: seven courses, normally taken in the following chronological sequence: 101, 102, 202, 203, either 301 or 302, 313 and 314, plus two additional electives in art history, and one studio course (121, 123, or 225). Students contemplating graduate work in art history should acquire knowledge of two foreign languages, particularly German. Option two, with an emphasis on studio experience: studio courses 121 and 125, plus four elective studios which must include at least one course emphasizing 3-D work (123, 223, or 323) and one course representing a second semester of a particular studio area. Four courses in art history including 101, 102, and a selection of one course in the area of Renaissance and baroque art and one course in the area of 19th or 20th century art. In addition, a portfolio must be submitted in the senior year for a departmental critique.

Honors and independent study courses may be applied to the major. Course selection, particularly major elective courses, should be carefully made after consultation with the major adviser.

Minor in Art History or Studio Art:

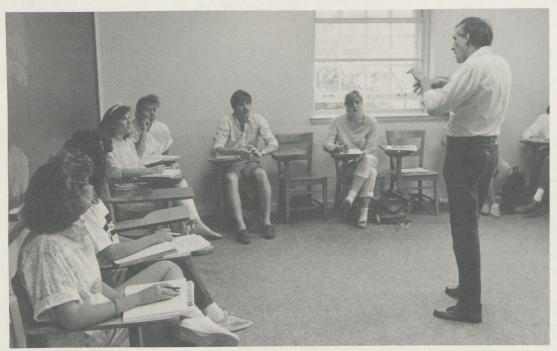
101 and 102 plus four additional courses in the appropriate discipline (art history or studio), subject to the minor adviser's approval, that suit the particular interests of the student.

French and Italian

ourses in French and Italian at Dickinson are designed to provide far more than language acquisition. The department believes that foreign language learning at the college level is not an end in or by itself. While we do provide language training through sources which are oriented toward an understanding and use of the written and spoken modern idiom, we also rely on that language background to cultivate in students an appreciation of French and Italian literature and civilization.

Those who elect to minor in French will be prepared to apply their background in French language and culture to related topics in other fields, such as history, international relations, or political science. The graduate French major will be, ideally, a person familiar with the great moments and movements of creative literary expression in the French tradition, proficient in the tools of literary analysis necessary for a deeper understanding of self and world, and conversant with the structure of a society different from his or her own. A French major or minor at Dickinson is thus a person who sees the world through two sets of eyes: those of his or her native culture and those provided by balanced training in French language, literature, and civilization.

After the elementary-course sequence, which introduces students who do not already have this background to the fundamentals of the language and culture, intermediate courses lay the foundation for a solid minor or continuation towards the major with emphasis on continued acquisition of functional oral and written language skills, together with an introduction to major French literary and cultural phenomena and the tools to analyze them. Armed with this background in breadth, advanced students pursue courses in depth selected from a wide array of more specialized topic areas in literature, civilization, and language pedagogy. Thus, while encouraged towards a choice of advanced courses that, taken together, form a fair representation of the content considered integral to the discipline, majors may also add informal emphasis to the structure of their program according to their own personal preferences and career aspirations.



The Department of French and Italian also coordinates an interdisciplinary minor in Italian studies. This program is designed as an attempt to introduce students to different fields of expertise, all related to specific aspects of Italian culture and civilization. The program includes work in the Italian language and literature as well as special courses offered by other departments. It should be of special interest to those planning to study in Italy, particularly with the Dickinson Program in Bologna. The requirements for the minor in Italian studies can be integrated easily into the student's main area of concentration in international studies as well. Although no major yet exists in Italian studies, students can elect to take a self-developed major in the field.

The department encourages study abroad. The Dickinson College Study Center in Toulouse, France offers a year abroad, so that students may deepen their knowledge of French language, literature, and civilization. Combining the quality of undergraduate instruction at Dickinson with the unique study opportunities of France's second-largest university, the program offers a core of Dickinson courses plus enrollment opportunities in the humanities, social sciences, and mathematics at the University of Toulouse. In addition, the department offers a five and one half-week

summer immersion program in Toulouse and a fourweek summer immersion program in Bologna.

The department also sponsors the French house and the Italian house. All students interested in French and Italian language and culture may request to live there after the freshman year. Each year both a French and an Italian university student live in the houses and act as resource persons for programs and activities. These usually include lectures, films, slice shows, and discussions. In addition, the department sponsors a French club and an Italian club, as well as weekly French and Italian tables in the Holland Union, where students interested in these languages meet over a meal with friends and faculty for informal discussion.

Because French and Italian studies at Dickinson are liberally oriented, providing skills and knowledge that can be applied to any field requiring critical thinking and an analytical mind, recent graduates who have majored or minored in French or minored in Italian studies have gone on to further studies or employment in a wide variety of areas. These include graduate studies, teaching, law, publishing and editing, interpreting, personnel work, and a multitude of positions in international business or banking concerns.

Dickinson College French and Italian 83

Michael B. Kline, Professor of French. Ph.D., Brown University. His scholarship has focused on 19th and 20th century French literature, particularly Balzac and the mythopoesis of culture in crisis, and the 20th century theatre with emphasis on the theatre of the absurd. His current research involves discourse strategies and humor in social context, using the work of Flaubert as a point of departure. (On leave 1989-90)

Sylvie G. Davidson, Associate Professor of Romance Languages. Chairman. Doctorat de Troisieme Cycle, Université de Montpellier. Coordinator of Italian Studies. Her scholarship has concentrated on French and Italian literatures, fine arts, and music of the Renaissance and 17th century. Her current research examines French and Italian festivals of the Renaissance and their ideological meaning as well as news films of the early 20th century as rhetorical devices for political purposes.

Nancy C. Mellerski, Associate Professor of French. Ph.D., University of Chicago. She specializes in French literature of the 19th and 20th centuries, particularly the modern novel and theory of the novel, and the fantastic in 19th century literature. Her most recent research is in the field of Marxian cultural analysis and comparative detective fiction.

Rebecca R. Kline, Senior Lecturer in French. M.A., New York University. Her research interests are proficiency orientation in classroom application, relationships between first and subsequent language acquisition, and the role of cognitive skills development in language instruction. She is an ACTFL-certified tester and trainer of the oral proficiency interview. (On leave 1989-90)

Patrick R. Craven, Assistant Professor of French. Ph.D., Rice University. Recent scholarship has focused on adapting psychoanalysis as an approach to the 19th century historical novel. His current psychoanalytical investigation is centered on the figures of the artist and the model in Poe, Balzac, Goncourt, and Zola.

Catherine A. Beaudry, Assistant Professor of French. Ph.D., Columbia University. Director of the Dickinson Study Center in Toulouse, 1989-91. Her scholarship has focused on 18th century French literature, particularly Jean-Jacques Rousseau and the advent of autobiography in modern culture. Her current research involves reader-oriented criticism and the use of Speech Act Theory in literary analysis.

Claudette Sartiliot, Assistant Professor of French. Ph.D., University of California at Irvine. Her dissertation in comparative literature treated Joyce, Brecht, and Derrida. Recent research interests include the relationship between supposedly "estheticist" and "political" aspect of modern literature, with emphasis on the link between botany and literature expounded by author in the French, German, and British traditions.

Angelo Spina, Instructor in Italian. M.A., Rutgers University. His scholarship has focused on poetry and poetic theory, with emphasis on the 20th century. His current research centers on the poetry of Andrea Zanzotto and other contemporary poets. Other areas of research include film theory, filmmaking and pedagogy.

Helen Harrison, Instructor in French. M.A. and M.Phil., Columbia University. Her scholarly research concerns 17th-century French theater, with particular attention to the interplay of money and language as media of exchange and indicators of social status.

John S. Henderson, Part-time Associate Professor of French. Ph.D., Brown University. His research centers on 18th century French literature, particularly Voltaire, the evolution of the theatre, and the history of ideas prior to the French Revolution. Secondary interests are intercultural communication and education.

Marjorie A. Fitzpatrick, Part-time Associate Professor of French. Ph.D., University of Toronto. French-Canadian civilization, particularly history and politics, is her primary research area, followed closely by Québécois literature, especially the novel of the 20th century. Other scholarly interests are in 17th century French literature, especially the theatre and moralists.

French

- 101-104. **Elementary French** Complete first-year course. Intensive study of the fundamentals of French grammar, with special attention given to pronunciation and oral expression. Cultural readings in the context of language acquisition. *Please refer to Graduation Requirements (Languages).*
- 116. **Intermediate French** Intensive second-year study of French, with attention to grammar review, conversation, reading in a cultural context and some writing. *Prerequisite: 104 or the equivalent.*
- 231. **Written Expression** A writing-intensive course directed towards improvement of stylistic skills. Some review of grammar insofar as it is a tool to achieve course goals. Writing assignments to include compositions, journals, prose style analyses, pastiches, and translations. *Prerequisite: 116 or the equivalent.*
- 232. **Oral Expression** Emphasis on use of the spoken language within the context of daily French civilization. Intensive participation intended to encourage increasing freedom of oral expression, particularly as applied to those areas of intercultural communication of value to Americans who will be living or working in France. *Prerequisite: 116 or the equivalent.*
- 233. Introduction to French Literature Provides the student with the tools necessary for an analytical approach to the study of French literature, through the examination of selected works. Emphasis on explication de textes, various genres and methods of criticism. Prerequisite: 231 or the equivalent, or permission of the instructor. Required of French majors.
- 234. Critical Approaches to French Literature A chronological, thematic, and critical study of major French texts in poetry, theatre, and prose from the Middle Ages to the present. Students will learn to contextualize literary works through the study of sociohistorical phenomena. *Prerequisite: 233 or the equivalent, or permission of the instructor.*
- 243. **Introduction to French Civilization** Intended for students who have not yet studied in France. Major social, political, economic, and other influences which have shaped the evolution of French civilization. *Prerequisite: 231 or the equivalent.*

- 346. La Francophonie Introduction to Frenchspeaking civilizations outside France, and in-depth study of French Canada. Historical, political, and cultural problems of minority Francophone cultures. Offered every other year. Prerequisite: 243 or at least a semester in Toulouse or the equivalent.
- 352. **The Theatre of the Sublime** The search for perfection in classical France. Molière, Corneille, Racine, and brief extracts from some of the major moralistes. Offered on occasion as a bilingual course in French and English. Offered every other year. Prerequisite: 234, or both 255 and 256, or the equivalent, or permission of the instructor.
- 354. **Reason and Revolution** The Enlightenment: a century of intellectual ferment which challenged the values of the establishment and swept them away in a revolution. Montesquieu, Voltaire, Diderot, Rousseau. Offered on occasion as a bilingual course in French and English. *Offered every other year. Prerequisite: 234, or both 255 and 256, or the equivalent.*
- 357. Romantics, Realists, and Rebels 19th century French novel and poetry. An investigation of the major literary movements and authors of the century, to include the theory and practice of romanticism and realism in French letters; reaction to society by authors in revolt against bourgeois standards, and in pursuit of new modes of literary expression. Offered every other year. Prerequisite: 234, or both 255 and 256, or the equivalent.
- 358. French Novel in the 20th Century Self-scrutiny in the novel. A study of the theory and the evolution of the modern French novel and a critical reading of selected works from the writings of novelists from Proust to the *nouveaux romanciers*. Development of the novel as a form in this century, aesthetic and philosophical concerns, and consideration of the novel as a self-conscious genre. Offered every other year. Prerequisite: 234, or both 255 and 256, or the equivalent.
- 361. French Literature in the Renaissance Major works from prose, poetry, and theatre, with particular emphasis on Rabelais and the development of humanism, the theory and practice of the Pléiade, and Montaigne. Offered every other year. Prerequisite: 234, or both 255 and 256, or the equivalent.

362. Seminar in French Literature A thorough investigation of a major figure or important literary trend (chosen at the discretion of the instructor and in consultation with the majors) in French literature with emphasis on seminar reports and discussion. Recent themes have been: evil, seduction, the fantastic, surrealism. Offered every other year. Prerequisite: major in French.

364. Topics in French Literature In-depth analysis and discussion of selected areas and problems not normally covered in other advanced offerings. Past topics have included: Women in French Literature, Theatre of the Absurd, French Autobiography. Prerequisite: 234, or both 255 and 256, or the equivalent.

365. Topics in French Civilization Investigation of a broad theme or selected area of French civilization through pertinent readings, media forms and research in both literary and non-literary materials. Past topics have included: French Political Culture, and Permanence and Change in French Society. Prerequisite: 243 or at least a semester in Toulouse or the equivalent.

The following courses are offered in Toulouse, the prerequisite for which is French 233, except for French 220:

220. Language and Civilization Immersion An intensive language and civilization course designed to increase oral proficiency, improve written expression, and develop cross-cultural observation skills through immersion in the Toulouse region. Social and cultural phenomena will be studied through interaction with French families, directed observation at historic sites, participation in class activities and tutorials. All components of the course are designed to facilitate acculturation. The exclusive use of French during the five and one-half week immersion is expected of all students. Evaluation is based on a combination of the following: interviews with the instructor, performance in the class, journal writing, and a final summary of the immersion experience. Offered only in summer at the Dickinson Study Center in Toulouse. Prerequisite: 116 or its equivalent and acceptance into the French Summer Immersion Program. Not intended for students who have completed French 233 or above.

255, 256. French Literature and Society A historically differentiated interpretation of French culture



through examination of French literature from the Middle Ages to the present in conjunction with study of political, economic, and social structures of each period. Intellectual and artistic currents that inform and are informed by these structures. Introduction of new critical perspectives such as psychoanalytical and structuralist literary theory. Offered only at the Dickinson Study Center in Toulouse.

260. Stylistics and Argumentation This two-part course offers practice in lexical expansion, idiomatic expression and syntactical patterns through exercises in translation, sentence analysis, reading comprehension and composition. Building upon these skills, students are introduced to French university methods of argumentation, principally through practice in four forms of written expression: résumé, dissertation, explication de texte, and commentaire composé. Offered only at the Dickinson Study Center in Toulouse.

264. Intensive French Expression This course utilizes audio and visual material to prepare students studying in Toulouse for active participation in the French cultural and linguistic environment by contextualizing a review of French grammar. Offered only at the Dickinson Study Center in Toulouse for spring semester students only. One-half course credit.

272. Intensive Grammar Review This course provides a concentrated, methodical review of key elements of French grammar. Emphasis is on diagnosis and correction of individual weaknesses, practice leading to refinement and mastery in the use of common structures, and preparation for transition to the study of stylistics and argumentation. Offered only at the Dickinson Study Center in Toulouse. One-half course credit.

273. **Topics in Applied French** Continued study of the French language designed to take advantage of issues of current interest in French society or culture (e.g., electoral seasons, important historical commemorations, current social or cultural controversies). Ample opportunity for written work and discussion of the topic chosen. *Offered only at the Dickinson Study Center in Toulouse. One-half course credit.*

290. Social Context of French Language The culturally determined nature of language studied in its social context. Theory and practice of the conventions of discourse, verbal signs, the norms of appropriate speech behavior, and other linguistic phenomena within the practice of the language. Texts, language laboratory, video presentations, and field observations will be employed to improve oral and written style as well as to examine the social nature of language. Offered only at the Dickinson Study Center in Toulouse.

318. Studies in Intercultural Communication Contemporary French society examined through theoretical reading and discussion as well as directed experiential observation. Explicit reference to French and American perceptions of cultural concepts so as to provide ideas, insights, and methods by which to understand and analyze the two societies. Readings, reports, discussions, field projects, and use of local resources comprise the work of the course. Offered only at the Dickinson Study Center in Toulouse.

Fine Arts 113. Romanesque Art of the Languedoc This course will examine the great flowering of Romanesque art, architecture, and/or sculpture of southern France by focusing on the study of principal monuments in the Toulouse area. First-hand study of works of art in Toulouse's Musée des Augustins will complement on-site examination of major churches in the region. The wealth of Roman remains in southern France will help clarify connections between medieval

art and its ancient predecessors. Offered only at the Dickinson Study Center in Toulouse.

Fine Arts 114. Gothic Art of the Languedoc The development of medieval art forms in the gothic style will be examined both in classroom and on site in southwestern France. Classroom lecture and discussion will be augumented by direct examination of outstanding examples of gothic art in churches, cloisters, and museums in the Toulouse area. The outstanding examples of private dwellings in Toulouse dating from the Renaissance period will illustrate the connections between the end of the Middle Ages and following periods. Offered only at the Dickinson Study Center in Toulouse.

Major:

Nine courses beyond the 100 level, to include 233 and two courses from the following group: 234, 243, 255, 256; plus one 300 level course on the Dickinson campus.

Minor:

Five courses beyond the 100 level, to include 233 and two courses from the following group: 234, 243, 255, 256.

Italian

101-104. **Elementary Italian** Intensive study of the fundamentals of Italian grammar, with a view to developing reading, writing, speaking, and understanding skills. Laboratory and other audiovisual techniques are used. Cultural elements are stressed as a context for the assimilation of the language. *Please refer to Graduation Requirements (Languages)*.

116. **Intermediate Italian** Intensive introduction to conversation and composition, with special attention to grammar review and refinement. Essays, fiction and theater, as well as Italian television and films, provide opportunities to improve familiarity with contemporary Italian language and civilization. *Prerequisite: 104 or the equivalent.*

231. **Oral and Written Expression** Practical use of Italian in oral and written communication. The course

includes lexical expansion exercises, grammar review, phonetic practice, reading comprehension, and discussion. The writing component of the course is designed to improve stylistic skills. Diverse assignments and readings enhance speaking and writing in varied contexts. Prerequisite: 116 or the equivalent.

250. Studies in Italian Literature Discussion and analysis of representative works of Italian literature from its origins to the present. Fiction, poetry, theater, and essays are considered in the light of important developments in literary criticism. Prerequisite: 116 or the equivalent.

290. Topics in Italian Studies Study of significant cultural, literary, historical, and linguistic topics in Italian civilization and culture. Specialists from other disciplines will, from time to time, contribute by lecture and discussion to a deeper understanding of certain specific subjects of study, e.g., Renaissance Art, Italian political parties, etc. Prerequisite: 116 or the equivalent.

The following courses are offered in Bologna:

220. Italian Immersion A four-week course in Italian language and culture offered in Bologna, Italy, Students speak only Italian while participating in intensive language instruction and other activities planned by the College to deepen students' understanding of contemporary Italian life and culture. Offered only at the Dickinson Center for European Studies in Bologna. Prerequisite: 116 or the equivalent and acceptance into the Italian Summer Immersion Program.

225. Intensive Italian Expression An intensive study of Italian which includes grammar review, reading comprehension and oral expression in the context of daily Italian civilization. Individual attention to structure, vocabulary, and idiomatic usage. Offered only at the Dickinson Center for European Studies in Bologna. Because of the similarity in content, credit will not be given for both 225 and 220 (the immersion course). Prerequisite: 116 and permission of the instructor.

Note: A major and minor are not offered in Italian. Students should refer to the interdisciplinary minor in Italian studies. The possibility exists for a selfdeveloped major in Italian studies.

Freshman Seminars

ickinson introduces all entering freshman to the requirements of college level study through the Freshman Seminar Program, Seminars are required as one of the regular academic courses taken during the first semester of freshman year. While the topics from which freshmen may select their seminar study are as varied as the special academic pursuits of the faculty who teach the seminars, all seminars share the tasks of helping students to adopt high standards for writing, discussion, analysis, and research. Faculty from all departments of the College share the responsibilities for teaching in the seminar program and seek to develop topics which will lead students into college-level study and reflection.

All Dickinson freshman arrive on campus for orientation knowing what freshman seminar they will join. The seminars begin in the orientation period, so that students are introduced to the academic life of the college at the same time that they learn to find their way into a new social environment. Because the work of the seminar is well under way when the semester begins, the seminars end shortly before the other course work of the fall semester, allowing freshman to enter their first examination period with one of their courses completed.

Geology

he geology department provides for the liberal arts student a background in the study of the earth, the oceans, and the history of life through several course offerings. For those who wish to pursue geology as an intellectual challenge or as a profession, it also provides an undergraduate program that offers lecture, laboratory work, field study, and the elements necessary to prepare for graduate study or entry into the profession at a beginning level. The faculty have a broad range of earth science training and research interests. Each is fully dedicated to teaching science as a liberal art.

The department views its program for majors as a flexible one that allows students to develop a plan of study around a set of required "core" courses according to their interests. Some graduates in recent years have moved into positions in the mineral or petroleum industry, consulting firms, secondary education, or state and federal geological or environmental agencies. Others have gone on to graduate or professional education in geology, geochemistry, geophysics, oceanography, law, and medicine.

The department is housed in a modern facility with state-of-the-art teaching and laboratory space. Students engaging in independent research have their own office space and share labs with faculty. Students and faculty can avail themselves of a full range of equipment and materials for field and laboratory study appropriate to an undergraduate education in geology. Our library receives all major professional journals and government documents. The department maintains a large collection of topographic and geologic maps. Laboratory equipment includes research and student petrographic and binocular microscopes, thin sectioning equipment, rock saws, and other sample preparation instruments. Major analytical instrumentation includes an x-ray diffractometer, an energy dispersive x-ray fluorescence spectrometer and an atomic absorption spectrophotometer shared with chemistry. Our most recent acquisition is a scanning electron microscope. Experimental studies in sedimentology are aided by a recirculating flume and

wind tunnel. All geologic studies can be supported by computers, from department-based micros to the VAX 8600 mainframe.

The geographic location of Dickinson College is unusually favorable for the study of geology, and regular field trips are part of nearly every course offering. For oceanographic, geophysical and geochemical sampling, the department has available a wide range of equipment including boats and vehicles, allowing access to most field study areas.

Field trips away from central Pennsylvania take place every year, either as part of a formal course during the academic year, as a summer program, or during a vacation period. In recent years these trips have included one (with a member of the Department of History) that traced the path of Lewis and Clark to the west coast (summer school), one to the United Kingdom (summer school), one to the Florida Key coral reefs (spring vacation), one to New England (early summer), and several to study beach processes at Assateague National Seashore and on the Outer Banks of North Carolina. Most recently, the department sponsored a trip to Iceland.

Our newest field study option is an interdisciplinary marine studies program. Sponsored jointly with biology and environmental sciences, the core of the program is an intensive three-week study of coral reef ecology, biology, and geology in the Florida Keys during January.

Faculty:

William W. Vernon, Professor of Geology and Anthropology. Ph.D., Lehigh University. His specialties are in mineralogy, petrology, optical mineralogy, and archaeology. His current research activity focuses on ore deposits and archaeometallurgic and ceramic developments in Thailand.

Noel Potter, Ir., Professor of Geology. Ph.D., University of Minnesota. His specialties are geomorphology and structural geology. His current research is mainly concerned with the origin of landforms, particularly those of cold regions. His current projects include work on glacial history in Antarctica and the erosional history of the Great Valley near Carlisle. (On leave 1989-90)

Henry W.A. Hanson, Associate Professor of Geology. Ph.D., Pennsylvania State University. His spe-



cialties are sedimentology, stratigraphy, and paleontology. His current research is the dynamics of tidal-inlet systems. (On leave 1989-90)

Jeffrey W. Niemitz, Associate Professor of Geology. Chairman. Ph.D., University of Southern California. His specialties are marine geochemistry and geophysics. His current research interests include sea floor hydrothermal systems and plate tectonics in the Gulf of California, Mexico, and laminated marine sediments applied to paleoceanographic and paleoclimatic studies.

Candie C. Wilderman, Associate Professor of Environmental Science. Ph.D., Johns Hopkins University. Her specialties are environmental science, aquatic systems, and paleolimnology. Her current research is mainly concerned with using diatoms as indicators of past and present environments. Her current projects include work on the rate and magnitude of acidification of local freshwater systems as a result of acid deposition.

Marcus M. Key, Jr., Assistant Professor of Geology. Ph.D., Yale University. His specialties are paleobiology and sedimentology. His current research involves macroevolutionary theory, phylogeny reconstruction, and the paleobiology of Ondovician bryozoans.

Janet W. Jones, Part-time Instructor in Geology. B.S., Dickinson College.

Courses:

131, 132. Physical and Historical Geology Examines our dynamic, ever-changing planet past and present through the theory of plate tectonics, and the physical processes that transform the earth's surface including weathering and erosion, flooding, and landslides. Groundwater, volcanoes, and earthquakes are discussed. The nature of geologic materials and structure of the earth are also examined. Continental wanderings, mountain building, ocean basin evolution, and climate changes are then the backdrop for 4.5 billion years of earth history and the evolution of life.

90 Geology 1989-90 Catalogue

Topics include the origin of life, early multicellular organisms, vertebrate evolution, invasion of the land by plants and animals, dinosaur dominance and extinction, and the diversification of mammals including man. The geologic history of the local area is observed through numerous field trips. Three hours classroom and three hours laboratory a week.

- 201. **Geomorphology** The description and interpretation of the relief features of the earth's continents and ocean basins with a comprehensive study of the basic processes which shape them. *Three hours classroom and three hours laboratory a week. Offered every other year. Prerequisite: 131.*
- 203. **Economic Geology** A study of energy resources, major ore deposits, and building materials including their geographic distribution, geologic occurrence, origin, and uses. Discussions include the economics of mineral resources, exploitation of resources, and evaluation of potential resources. *Offered every other year. Prerequisite: 131. This course is crosslisted as Environmental Studies 203.*
- 205. Mineralogy A course in descriptive mineralogy in which the various mineral groups are studied. Includes crystallography, general physical properties, and chemical and systematic mineralogy. Two hours classroom and three hours laboratory a week. Prerequisite: 131 and Chemistry 131, 132 or concurrent registration therein.
- 206. **Petrology** A systematic study of the modes of occurrence, origin, and classification of rock types. Laboratory studies will be focused on the megascopic identification of the common rocks. *Two hours class-room and three hours laboratory a week. Prerequisite:* 205.
- 207. Invertebrate Paleontology A systematic study of the invertebrate fossil groups, their evolution, and their relationships to living animals. Three hours classroom and three hours laboratory a week. Offered every other year. Prerequisite: 131, 132 or Biology 111, 112.
- 209. **Sedimentology** A systematic study of source materials, transport, depositional environments, lithification, and diagenesis of sediments. *Three hours classroom and three hours laboratory a week. Prerequisite: 131, Chemistry 131 or permission of the instructor.*

- 210. **Stratigraphy** Principles of organization and interpretation of the stratigraphic record. Emphasis on the stratigraphy of the Appalachians and selected European areas. *Three hours classroom and three hours laboratory a week. Three Saturday field trips. Offered every other year. Prerequisite: 131, 132, 205, 209.*
- 220. Environmental Geology A survey of humankind's interaction with the physical environment focusing on geologic processes. The importance of geologic materials such as soils, sediments and bedrock, and natural resources will be discussed in the context of world population. Natural hazards (floods, earthquakes, volcanoes, coastal erosion, and landslides) will be studied to understand how we can minimize their threat. Land use and abuse including natural resource exploitation and pollution will be discussed in the context of geologic information for proper land-use planning. Labs will emphasize field study of environmental problems in the Cumberland Valley. Prerequisites: Geology 131, 132 or Environmental Studies 131, 132. This course is cross-listed as Environmental Studies 220.
- 221. **Oceanography** An interdisciplinary introduction to the marine environment, including the chemistry of seawater, the physics of currents, water masses and waves, the geology of ocean basins, marine sediments and coastal features, and the biology of marine ecosystems. Topics include the theory of plate tectonics as an explanation for ocean basins, mid-ocean ridges, trenches, and island arcs. The interaction of man as exploiter and polluter in the marine environment is also considered. *Three hours classroom and three hours laboratory per week*. Offered every other year. Prerequisite: one year of a laboratory science. This course is cross-listed as Environmental Studies 221.
- 301. **Field Geology** A course in some of the basic geological field techniques, with the preparation of topographic and geologic maps and reports from data obtained by the student in the field. *Three hours classroom and three hours laboratory a week. Prerequisite:* 131, 132.
- 302. **Structural Geology** Tectonics, properties, relationships, and positions of the component rock masses of the earth. *Three hours classroom and three hours laboratory a week. Prerequisite: 301.*

Dickinson College Geology 91

- 303. **Geochemistry** Introduction to the origin and distribution of the elements and to geochemical cycles and processes in the earth's atmosphere, hydrosphere, and lithosphere. Includes radioactive dating methods and stable isotope geology. *Offered every other year*. *Prerequisite: Chemistry 131, 132, Geology 131, 132. May be counted toward a chemistry major.*
- 311. **Special Topics** In-depth studies in special geological topics to be offered on the basis of need and demand. Recent topics have included Environmental Geology, Origin of Life, Quaternary Geology, and Instrumental Analysis in Geology. *Prerequisite: Permission of the instructor. One-half or one course.*
- 318. **Optical Mineralogy** Crystal optics and use of the polarizing microscope for the examination of minerals by the immersion method and rocks in thin section. *Two hours of classroom and three hours laboratory a week. Offered every other year. Prerequisite: 206 or concurrent registration therein.*
- 324. **Seminar** A reading, research, and conference course on topics in geology and related interdisciplinary fields. *Prerequisite: Permission of the instructor. One-half course.*

Major:

Nine courses including 131, 132, 205, 206, 209, 301, and 302. In addition, Chemistry 131, 132 is required.

Minor:

Six courses including 131, 132.

Note: The department strongly urges students who plan to continue in graduate school to complete Mathematics 161, 162 and Physics 111, 112 or 131, 132. Under certain circumstances Physics 202 might also be appropriate. Students in virtually all graduate programs are expected to have a firm foundation in chemistry, calculus, and physics.

German

he German program at Dickinson College offers a wide range of courses in language, literature, and culture which reflects the diversity in background and research interest of its faculty. Because the classes are small, professors emphasize a discussion format, encouraging lively interaction. Although the program is challenging and demanding, the atmosphere in class is friendly and supportive. Most of our German majors also major in a second field. Particularly common have been combinations with economics, international studies, American studies, a natural science, or another language. Graduates incorporate their language skills and their knowledge of German culture into careers as varied as law, banking, theatre, business, publishing, and museum work. Some have established successful careers in Germany.

The department maintains strong links with German speaking countries, enabling students to experience German culture directly at all course levels. We have a summer and a junior year program at the University of Bremen, our partner university, and the department encourages advanced students to study either in Bremen or at another quality program in Germany, Austria, or Switzerland during the junior year. Frequently, vistors, guest lecturers, and professors come to the Dickinson campus from the University of Bremen, other universities or agencies of the Federal Republic of Germany, and from the German Democratic Republic and Austria. Each year two students from the University of Bremen come to Dickinson. They serve as assistants and resource persons within the College. Our library holdings are very good for a college the size of Dickinson and include the most important German journals and newspapers. Through our campus-wide satellite system we receive German television programs, keeping us up-to-date on the latest cultural and political developments in Germany and Austria.

Students may fulfill their Dickinson language requirement by taking the three basic courses (German 101, 104, and 116), and may continue on to minor or major in German. Language classes employ the latest



teaching technologies such as German films and television programs, teleconferences with German students and staff at the University of Bremen, and of course, the language lab. The department has software (IBM) for language instruction, and our students may use it on their own computer or in Dickinson's computer labs, one of which is located right in Bosler Hall, housing the departments of modern languages.

At the end of the three-semester sequence, students may apply to the German department's Bremen Practicum (German 220). This month-long immersion program is held each summer on the campus of the University of Bremen. It combines intensive language instruction by University of Bremen professors with field trips to cultural sites and government and business offices. Students live with German families during these weeks, getting to know German family life first hand.

After fulfilling their language requirement, students may take German 221 (Conversation and Composition), German 230 (Introduction to Literary Genres), or German 240 or 241 (German Cultural History). German 230, 240, and 241 are required for the major or minor, and provide the basis for the 300-level literature courses, which include both genre and period courses. In addition to our standard offerings, the department teaches one special topics course each semes-

ter, focusing on particular aspects of Germanic literature or culture, such as Scandinavian literature, women's literature, and German film, or on an individual author such as Johann Wolfgang von Goethe, Franz Kafka, Heinrich Böll, or Christa Wolf. All majors take part in the 400-level seminar taught during the spring semester of their senior year. Based upon the knowledge of the subject matter and methodology acquired in previous courses, this seminar provides students with the opportunity to do their own research within the framework of the seminar's topic, to present their findings to the class as a whole, and to apply for departmental honors through the writing of a senior thesis.

A strong cocurricular program at Dickinson supports the German offerings through the German Club, German House, German Table, films, excursions, radio shows, and other activities.

Faculty:

Dieter J. Rollfinke, Professor of German. Chairman. Ph.D., Johns Hopkins University. His teaching interests focus on German culture as well as Romanticism and German literature of the 19th and 20th centuries. His current research is on the German novelist Heinrich Böll.

Dickinson College German 93

Beverley D. Eddy, Associate Professor of German. Ph.D., Indiana University. Her scholarship has focused on German and Scandinavian prose literature of the 19th and 20th centuries as well as on German and Scandinavian folklore. Other teaching interests include medieval studies and feminist criticism.

Wolfgang Müller, Associate Professor of German. Ph.D., University of Wisconsin at Madison. His teaching interests are German literature after 1750, drama and film, literary criticism, and East German literature.

Gisela Roethke-Makemson, Assistant Professor of German. Ph.D., Harvard University. Her specialization is 20th century German literature and narrative fiction as a genre. She is also interested in literary theory and women's literature. Her research deals with the author Hermann Broch.

Marianna Bogojavlensky, Part-time Professor Emerita of German and Russian. Ph.D., University of Pennsylvania. Her special teaching interests concern methods of teaching foreign languages and Russian classical literature. Her main research interest is religious thought in Russian and Soviet literature.

Ronald Pirog, Part-time Assistant Professor of German. Ph.D., University of North Carolina at Chapel Hill. His research interests are 19th and 20th century prose fiction, the works of Gottfried Keller, and reception theory. Other interests include international education, particularly cross-cultural orientation.

Courses:

101-104. **Elementary German** An intensive study of the fundamentals of German grammar with an eye to developing reading, writing, speaking, and understanding skills. Classes are small, meet five days a week, and move quickly. Beginning students are reading stories and writing short essays within a few weeks. *Please refer to Graduation Requirements (Languages)*.

116. **Intermediate German** Introduction to conversation and composition using the skills acquired in 101 and 104 or in similar courses. Special attention is paid to grammar problems. Readings include contemporary essays and/or fiction. Classes are small and in-

tensive, meeting five days a week. Prerequisite: 104 or the equivalent.

- 221. **German Conversation and Composition** Advanced practice in reading, writing, speaking, and understanding German, using current political and social events, stories, essays, and other materials as the topics for discussion and writing assignments. *Prerequisite: German 116 or the equivalent.*
- 230. Introduction to Genre in German Literature An introduction to selected works typifying different genres, and to the tools, methods, and purposes of studying literature. *Prerequisite: German 116 or the equivalent.*
- 240. **German Cultural History I** A survey of the historical, social, and cultural developments in Germany, including their impact upon German literature, from pre-Christian days up to the French Revolution. *Prerequisite: German 116 or the equivalent.*
- 241. **German Cultural History II** A survey of the historical, social, and cultural developments in Germany, from the French Revolution up to the present day. *Prerequisite: German 116 or the equivalent.*
- 331. **German Drama** A study of the major dramas and dramatic movements in the German-speaking countries, with an emphasis on drama both as literature and as theatre. Dramatists to be studied may include Hrosvitha von Gandersheim, Lessing, Schiller, Büchner, Hauptmann, Brecht, and Dürrenmatt. *Prerequisite: German 230.*
- 332. **German Lyric Poetry** A study of the leading lyric poets of the German-speaking countries, drawn from a variety of periods and styles, including Goethe, Novalis, Mörike, Droste-Hülshoff, Rilke, Trakl, Benn. *Prerequisite: German 230*.
- 333. German Narrative Prose A study of representative works in German prose fiction, with an emphasis on narrative technique. Writers may include Goethe, Eichendorff, Keller, Schnitzler, Mann, Kafka, Christa Wolf. *Prerequisite: German 230*.
- 341. **German Medieval Literature** A study of the German medieval period. Readings will include epics such as the Nibelungenlied, the Eddas, the songs of

the courtly poets, and Arthurian tales. Prerequisite: 230 and 240. Simultaneous enrollment in 240 is permitted.

342. **Sturm und Drang and German Classicism** A study of the works of Goethe and Schiller and their contemporaries, and the era in which they lived and worked. *Prerequisite: 230 and 240. Simultaneous enrollment in 240 is permitted.*

343. **German Romanticism** A study of the generation of writers after Goethe and Schiller (the 1790s to the 1830s), e.g., E.T.A. Hoffmann, Brentano, and the brothers Grimm, whose stories, poems, and fairy tales have had a powerful effect on Poe and Hesse. *Prerequisite: 230 and 240. Simultaneous enrollment in 240 is permitted.*

344. **German Bourgeois Realism** A study of the works of Stifter, Grillparzer, Heine, Grabbe, Storm, and Fontane, writers active from the turmoil of the mid-1800s to the rise of Prussia and the decay and collapse of the Austrian empire. *Prerequisite: 230 and 241. Simultaneous enrollment in 241 is permitted.*

345. **German Expressionism** A study of the works of writers in World War I and the Weimar Republic, including Wedekind, Werfel, Trakl, Kaiser, Toller, and Lasker-Schüler. *Prerequisite: 230 and 241. Simultaneous enrollment in 241 is permitted.*

346. Contemporary East and West German Literature A study of the works of Böll, Grass, Morgener, Wolf, Kunert, etc., as writers dealing with contemporary issues in the two Germanys. Prerequisite: 230 and 241. Simultaneous enrollment in 241 is permitted.

350. **Topics in Germanic Studies** An examination of some topic related to German literature or culture. Topics may include German Film, German Humor, Sagas and Legends. *Prerequisite: permission of the instructor.*

400. **Senior Seminar** Advanced investigation of a particular writer, work, problem, or theme in German literature and/or culture, with emphasis on independent research and seminar reports. *Prerequisite: German major or permission of the instructor.*

The following courses are offered in Bremen:

220. The Bremen Practicum A four-week course in contemporary German language and culture offered at the University of Bremen, West Germany. Students will speak only German during this four-week period, and participate in intensive language classes, special lectures and field trips arranged by Dickinson with German university instructors. Prerequisite: German 116 or equivalent and permission of the department.

340. Comparative Cultures: USA-Germany Using the university and city of Bremen as laboratory, students will explore the experience of culture shock, the difference between American and German everyday life, structural differences in American and German public institutions, historical ties between the two countries, historic concepts and symbols, differing relationships to national culture, the effect of two Germanies on West German consciousness. *Prerequisite: Acceptance into the Dickinson in Bremen Program.*

Major:

Nine courses, number 220 and above, including 230, 240, 241, and 400. At least seven of the nine courses must be in the German language. Any courses toward the major taken outside the Department must be approved by the German faculty.

Every German major who spends the junior year abroad is required to enroll in at least one German course (not independent studies) during each semester of the senior year.

Minor:

Five courses numbered 220 and above, including 230, 240, and 241. Four of these courses must be in the German language.

Greek

See Classical Studies

Hebrew

See Classical Studies

History

he study of history is one of the most important aspects of a liberal arts education. It informs you about your own cultural and intellectual heritage, and the process of social, political, and economic development that produced the institutions and attitudes of our own world. The history department at Dickinson offers a range of introductory and advanced courses in both American history and in European history since the Middle Ages. In addition, living as we do in a world of many different societies and civilizations, the study of history provides information about the non-Western world and comparative insights into the operation of historical processes throughout the world. We offer introductory and advanced work in the history of East and South Asia as well as courses on the Middle East and Latin America.

Another reason for studying history at Dickinson would be to acquire training in the skills of the historian—skills as basic as using the resources of a library, writing well, and reading texts critically and analytically. All courses in the department offer opportunities to master reading, writing, and research. These skills are especially emphasized in a freshmanlevel course called Historical Methods and in the several seminars on various topics that are offered each semester.

Students graduating with a major in history sometimes go into specifically historically oriented careers such as teaching, research, and library and archival work, but most of them have found that the study of history has prepared them with the background and skills to enter such varied professions as law, business, journalism, and government.

Faculty:

Clarke Garrett, Professor of History. Ph.D., University of Wisconsin. His current interests and specialization include the study of European culture, the French Revolution, and historiography and methodology, especially the application of anthropology and

psychology to history. His research centers on the comparative study of popular religious movements in the 18th century, mainly in France, England, Italy, and America.

Stephen Weinberger, Professor of History. Ph.D., University of Wisconsin. His teaching interests center on medieval and Renaissance history, and European intellectual history, with emphasis on feudal society. His current research involves conflict in medieval society, the hero, and Machiavelli.

Charles A. Jarvis, Professor of History. Ph.D., University of Missouri. Teaching interests are U.S. history 1787-1865, U.S. diplomatic, and Afro-America. Research interests examine abolitionism and the Civil War.

James W. Carson, Associate Professor of History. M.A., Miami University. With special interests in South Asia, particularly with an emphasis on nationalism and its consequences, his research focuses on Muslim nationalism and the evolution of Pakistan.

George N. Rhyne, Associate Professor of History. Ph.D., University of North Carolina. Teaching focuses on modern European history, with specialization on Russian and Soviet history, and diplomatic history. His current research centers on Soviet-Italian relations in the 1920s.

Neil B. Weissman, Associate Professor of History. Ph.D., Princeton University. His areas of specialization involve the comparative history of Russia, Japan, and Germany, with emphasis on the impact of revolution and modernization on traditional societies and cultures. His research deals with police and deviance in early Soviet Russia and with the origins of the Soviet public health system. (On leave 1989-90)

John M. Osborne, Associate Professor of History. Chairman. Ph.D., Stanford University. Teaching interests center on British and modern European history, with specialization on World War I, industrialism, and leisure. Present research interests are in the social history of recreation in First World War Britain.

Kim Lacy Rogers, Associate Professor of History. Ph.D., University of Minnesota. Her teaching interests center on recent U.S. history, urban America, and

gender and family history. Research interests include biography and autobiography, oral history and lifecourse analysis. (On leave Fall 1989)

Daniel K. Richter, Assistant Professor of History. Ph.D., Columbia University. Teaching areas include American social and intellectual history and the colonial and Revolutionary periods. His research centers on early American race relations, and his principal current project is a history of the Five Nations Iroquois Indians during the 17th century.

David Commins, Assistant Professor of History. Ph.D., University of Michigan. His research and teaching interests are in modern Middle Eastern history with an emphasis on intellectual and social development of the nations of that region.

Stephen C. MacDonald, Part-time Assistant Professor of History. Ph.D., University of Virginia. His teaching focuses on modern European history, especially modern Germany and the era of the World Wars. Research interests include 20th century revolutions, German National Socialism, and the Holocaust.

Iona D. Crook, Instructor in History. B.A., Beijing University, M.Phil., Yale University. Her areas of concentration are in East Asian History, centering on modern China and Japan. She is focusing her present research on politics and patronage in Qianlong's China but is also writing on feminism in early 20th-century China.

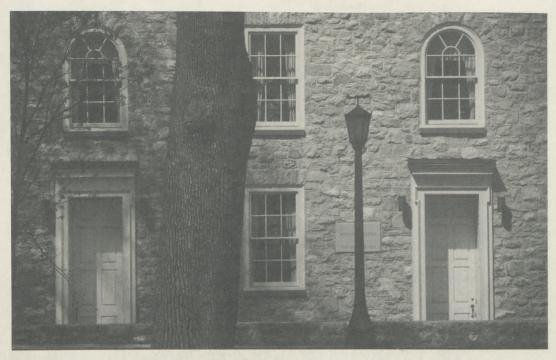
Courses:

- 105. **Medieval Europe** A survey of the development of European civilization from the fall of Rome to the Renaissance.
- 106. **Modern Europe I** Society, culture, and politics from the Renaissance through the French Revolution.
- 107. **Modern Europe II** Social, cultural, and political developments in Europe from the French Revolution to the present.
- 117, 118. **American History** A two-course survey. The first term—1607 to 1865—treats colonial, revolutionary and national America through the Civil War. The second course—1865 to the present—treats as-

pects of political evolution, foreign policy development, industrialization, urbanization, and the expanding roles of 20th century central government. Both courses include attention to historical interpretation. *Multiple sections offered*.

- 119. **South Asia: India and Pakistan** Following a survey of the development of South Asia since independence and partition, the emphasis is placed on the evolution of traditional India's institutions and peoples, with particular attention given to the impact of both Moslem and Western culture.
- 120. **East Asia: China and Japan** An introduction to the classical order in China and Japan followed by a consideration of the impact of Western intervention and internal change from the 18th century to the present. Special emphasis on the interaction between China and Japan in this period.
- 121. **History of the Middle East I** The rise of Islam, the development of Islamic civilization in medieval times and its decline relative to Europe in the early modern era, 1500-1750.
- 122. **History of the Middle East II** Bureaucratic-military reforms of the 19th century in Egypt and the Ottoman Empire, European imperialism, regional nationalisms, contemporary autocratic regimes, and the politicalization of religion.
- 190. **Historical Method** Through selected readings and discussion about the nature of history, and through analysis and projects related to selected historical problems, the student is introduced to the art and techniques of the discipline. *Prerequisite: one previous course in history.*
- 222. **Feudal Europe** A study of the emergence of feudalism and an evaluation of its role in the development of western Europe. *Offered every other year.*
- 223. **Renaissance Europe** A study of prevailing conditions (social, economic, political, and cultural) in western Europe with particular attention given to the achievements and failures of the Renaissance. *Offered every other year*.
- 230. Modern Germany From the 19th century to the present. Emphasis on political and cultural re-

Dickinson College History 97



sponses to socio-economic change, including German liberalism, the Bismarckian settlement, origins of the World Wars, Weimar democracy, and Nazism. *Offered every other year*.

- 231. **Modern France** French society, culture, and politics from the Old Regime to the present. *Offered every other year*.
- 232. **Modern Italy** A survey of social, cultural, and political developments from the beginnings of the Risorgimento in the 18th century to the post-war period, including the effects of the Napoleonic period, the unification of Italy, World War I, Fascism, World War II, and the Cold War. *Offered every other year*.
- 234. **Europe: 1914-1945** An examination of the evolution of European society between 1914 and 1945 under the impact of communism, fascism and world war. *Offered every other year.*
- 235. **Industrial Europe** The social, economic, and cultural impact of the rise of industrialism and modernization on western Europe from 18th century beginnings to the full maturation of industrial society. *Offered every other year.*

- 243, 244. English History: 55 B.C. to Date First semester: the emergence of a unified English society, and its political expression, to 1688 with particular attention to social, economic, and institutional developments. Second semester: the political, economic, and social development of Great Britain, domestically and internationally, as a major power in the 18th and 19th centuries, and the abandonment of that role in the 20th century.
- 247. American Colonial History An examination of North American history from the earliest contacts between European and American peoples to the eve of the American Revolution. Particular attention is devoted to the interplay of Indian, French, Spanish, and English cultures, to the rise of the British to a position of dominance by 1763, and to the internal social and political development of the Anglo-American colonies. Offered every other year.
- 253, 254. **History of Russia** First semester: from earliest times through the reign of Alexander III. Second semester: fall of the tsardom, the Russian revolution, and the communist state from Lenin to the present.

- 257. **European Intellectual History** Main currents of Western thought from the 17th century to the present with emphasis upon the interaction of ideas and social development. *Offered every other year*.
- 259. **Europe Since 1945** A social, political, and diplomatic study of the nations of Europe from the end of the Second World War to the present including the early East/West division, the development of NATO and the Warsaw Pact, economic recovery, and the growth of economic and political integration.
- 262. **Modern South Asia** Crises in Indian civilization of 19th and 20th centuries. Impact of Western control and the evolution of nationalism resulting in independence and partition in 1947. Contemporary nations and cultures: India, Pakistan, and Bangladesh. *Offered every other year.*
- 281. **Recent U.S. History** Examination of the social, political, and economic development of the U.S. since the New Deal.
- 288. American History in the Civil War Period An analysis of the political, economic, and intellectual aspects of 19th century America from 1828 to 1865. Attention is given to the causes and course of the Civil War.
- 292. The Family in America Traces the history of the American family from the colonial period through the present, using an interdisciplinary approach that combines readings in demography, social history, psychology, literature, and anthropology. Topics explored include family formation and gender creation, marriage and divorce, family violence, and the social impact of changing patterns of mortality and fertility.
- 311. Studies in American History Selected areas and problems in American history.
- 313, 314. **Studies in European History** Selected areas and problems in European history. *214 offered in Bologna only*.
- 315. **Studies in Comparative History** Selected trends and problems studied comparatively in various periods and geographical areas.

- 333. **The First World War** A study of the causes, progress, and consequences of the first global conflict of modern times. Particular attention is paid to the political and social impact of total warfare on the participating nations. *Offered every other year*.
- 336. Comparative Revolutions Comparative consideration of major revolutions such as those in France (1789), Russia (1917), and China (1949) in terms of causation, program, dynamics, and long-term effect. Offered occasionally.
- 349, 350. American Intellectual and Social History I and II An exploration of relationships between American ideas and American society, with particular concern for the changing ways in which Americans have thought about themselves, their communities, and their role in the world. The first semester deals with selected topics from the European discovery of America to the middle of the 19th century, including the evolution of racial attitudes, the rise and fall of Puritanism, the roots of republican political ideology, and the efforts of 19th century reformers. The second semester covers topics from the mid-19th century to the present, with special attention to the social world of the factory and the city and the intellectual world of science and social science.
- 358. **19th-20th Century European Diplomacy** European diplomatic history from the Congress of Vienna through World War II. *Offered occasionally*.
- 360. **Japanese Modernization** An investigation of the impact of modernization on Japanese society over the last century. Special emphasis on conflicting interpretations of Japanese constitutionalism, imperialism, and militarism and on the relevance of Japan's historical experience for an understanding of her contemporary condition. The course is not a survey, but no previous knowledge of Japanese history is required. *Offered every other year.*
- 361. China: Revolution and Modernization An examination of the interaction between the themes of modernization and revolution in China over the last two centuries. Emphasis on alternative programs for a new Chinese order including Nationalism and Communism. The course is not a survey, but no previous knowledge of Chinese history is required. Offered every other year.

Dickinson College History 99

- 371. The Arab-Israeli Conflict A study of conflict through four phases: the early stages of the Zionist movement and its impact in Ottoman Palestine to 1917; Zionist immigration and settlement and Arab reaction during the Mandate period; the creation of Israel and its wars with the Arab states to 1973; and the rise of a Palestinian Arab nationalist movement and the challenges it poses to Arab state and Israel.
- 372. **Islam** An introduction to Islamic beliefs and practices in their classical form: theology, mysticism, philosophy, law, and ritual. This course also provides an overview of modern political and cultural developments in Muslim society.
- 382. **Diplomatic History of the United States** Description and analysis of the nation's role in world affairs, from the earliest definitions of a national interest in the 18th century, through continental expansion, acquisition of empire, and world power, to the Cold War and retreat from intervention.
- 387. **American Constitutional History** The framing of the federal constitution and its historical development, with emphasis on evolving interpretation by the courts. *Offered every other year.*
- 388. **Afro-American History** A survey of black history from pre-colonial Africa and the origins of slavery in the American colonies to the urban migrations of the 20th century.
- 392. Cities and Ethnicity in America This course examines the experiences of urbanization and industrialization in America during the 18th through the 20th centuries. Emphasis is placed on the experiences of migration, work, racial and ethnic ghettoization, assimilation, and deviance within the urban context. Offered every other year.
- 401. **Seminar in European History** Selected topics. *Prerequisite: permission of the instructor.*
- 402. **Seminar in American History** Selected topics. *Prerequisite: permission of the instructor.*
- 403. **Seminar in Asian History** Selected topics. *Prerequisite: permission of the instructor.*

Major:

Ten courses including:

- I. History 190: to be completed within one semester of declaring a major in history.
- II. One of the following: History 401, 402, 403, Philosophy 385, or when approved in advance by the department, a semester course in history in independent study or independent research which treats some aspect of the methodology or philosophy of history.
- III. Two of the following American history courses: 247, 249, 281, 288, 311, 350, 382, 387, 388, 391, 394, 402.
- IV. A. One European history course prior to 1650: 105, 106, 222, 223, 243, 253, 313 (if appropriate).
 - B. One additional European history course: 222, 223, 230, 231, 232, 234, 235, 243, 244, 253, 254, 257, 259, 313, 333, 336, 358, 401 (if appropriate).
- V. One non-Western history course: 119, 120, 215, 262, 273, 274, 360, 361, 371, 403 (if appropriate).

Note: One of the following courses may be substituted either for requirement IV.A. or IV.B: Classics 251, 252, 253, or 254.

Minor:

Six courses, including at least two in American and two in European history.

Humanities

In all courses given the humanities designation, students study the aesthetics of specific human works in various media and inquire into the meanings of human existence embodied or suggested there. The courses explore the varied historical and cultural contexts of such works to support the primary focus upon the integrity and artistic character of the works themselves. The instruction is interdisciplinary.

120. Masterworks of the Western World A study of a small number of works from the several arts—architecture, the graphic arts, literature, and music. The intent is 1) to focus on the works themselves, their dialectics of form and content, 2) to inquire into their historical cultural and personal contexts, and 3) to explore the conditions and character of each achievement, both in its own setting and in its potential for more universal aesthetic power. Works will be chosen from fifth century Athens, 16th or 17th century Europe, and 20th century America. Open to freshmen and sophomores.

220. Masterpieces of the Western World This course will have the same syllabus as Humanities 120. Identical materials are covered and lectures given jointly. However, the course will have its own discussion groups, and a more advanced level of interpretive skills will be assumed both for group discussions and for evaluation. *Open to juniors and seniors*.

Note: Students may take either course for credit but not both. Either course fulfills Group 1 of the humanities division distribution requirement.

The following courses are offered in England: 309. Studies in the Humanities I The primary aim of Humanities 309 is to help students understand works of art as human statements that share certain formal principles and make manifest (in their differing ways) a variety of common values. The course explores not only those formal and aesthetic principles to which all the arts respond in various historical eras,

but also those occasions when one art form influences another. A second major goal is to study the ways that literature, the fine arts, drama, and music might well be understood by considering the sensibilities of the creator within the socio-cultural influences of a particular epoch. The emphasis in this regard is on the ways in which the history and geography of London can help us appreciate the production, performance or displaying of the arts in a specific cultural context. Offered only in the Dickinson Humanities Program in England. This course will fulfill neither a distribution nor a major requirement. Prerequisite: acceptance into the Dickinson Humanities Program in England.

310. Studies in the Humanities II The primary aim of Humanities 310 is to help students understand works of art as human statements that share certain formal principles and make manifest (in their differing ways) a variety of common values. The courses explore not only the formal and aesthetic principles to which all the arts respond in various historical eras, but also those occasions when one art form influences another. A second major goal is to study the ways that literature, the fine arts, drama, and music might well be understood by considering the sensibilities of the creator within the sociocultural influences of a particular epoch. The emphasis in this regard is on the ways in which the history and geography of Norwich and East Anglia in particular, and "the country" in general, can help us appreciate the production, performance or displaying of the arts in a specific cultural context. Students will build upon individual research projects undertaken in Humanities 309, studying the special impact of setting on culture. Offered only in the Dickinson Humanities Program in England. This course will fulfill neither a distribution nor a major requirement. Prerequisite: Humanities 309.

315. Topics in the Humanities This course permits the exploration of a discipline-specific topic in the context of English culture. Topics will vary according to the discipline of the director and may include topics from the following disciplines: dramatic arts, literature, fine arts, history, and music. Offered only in the Dickinson Humanities Program in England. This course will not fulfill a distribution requirement and will fulfill a major requirement if so directed by the department of the Dickinson Director. Prerequisite: permission of the instructor.

Interdisciplinary Studies

Courses:

300. **The Bologna Practicum** An interdisciplinary seminar focusing on the city of Bologna. Guest participants include administrators, political figures, art experts, and others with local expertise. *To be offered only in Bologna*.

International Studies

International studies is an interdisciplinary major which draws on the perspectives of economics, history, and political science to examine international relations in a changing world environment. To these disciplines are added cultural studies concerning a geographical area of the student's choice: e.g., a language of the area and selected courses in the area's literature, philosophy, music, art, or religion. The interdisciplinary experience is completed with an integrative research seminar and a comprehensive examination. The program is intended to prepare a student either for graduate studies or for a career with an international focus.

Contributing Faculty:

Douglas T. Stuart, Associate Professor of Political Science, Director

Russell Bova, Assistant Professor of Political Science Robert D. Ness, Associate Professor of English

Courses:

290. **Selected Topics in International Studies** Special topics not usually studied in depth in course offerings are examined.



401. **Interdisciplinary Seminar Research** Integrates the various disciplines in the major, normally involving the student's geographic area.

402-403. **Integrated Study** During the senior year students will prepare for an oral examination in the core disciplines and in their area. The examination will be administered by the supervising committee. *One-half course credit each semester.*

Major:

I. Core Disciplines: eight courses in the core disciplines (economics, history, and political science). They must include the following, plus two electives. Electives must be clearly international in content and pertain directly to the student's area of geographic concentration.

Political Science 170 International Relations

Political Science 280 American Foreign Policy, or Political Science 281, American National Security Policy

History 382, U.S. Diplomatic History. History 118 may be substituted if 382 is not available, with prior approval of the program director.

History 358, 19th-20th Century European Diplomatic History. History 107 may be substituted if 358

is not available, with prior approval of the program director.

Economics 100, Contemporary Economics Economics 248, The World Economy or Economics 348, International Economics

II. Area Courses: five courses in one geographic area (Asia, Latin America, Russia and Soviet Union, Middle East, western Europe; students selecting western Europe will usually focus on a single nation exclusive of courses taken to meet requirements in the core disciplines. Three of these courses must be in the humanities. These courses must include:

- a. one course in the history of the area or nation of concentration (western Europe courses must be in the appropriate national history wherever possible),
- b. one language course beyond the 116 level in the language of the area or nation of concentration,
- c. three courses examining the culture/civilization of the area or nation of concentration

Note: No core or area courses may be taken Pass/Fail.

III. Interdisciplinary Seminar Research: International Studies 401 seminar taken in the senior year.

IV. Integrated Study International Studies 402-403.

Study Abroad

One or two semesters (fall, spring, or summer): A student may choose, with the approval of the supervising committee, any program of foreign study in the context of an international studies semester abroad program. Although majors are encouraged to go abroad, study abroad is not required.

Departmental Honors

A student will be awarded departmental honors if the student has a 3.00 average overall and in the major, an A or A- in International Studies 401, and Honors in the oral examination.

Italian

See French and Italian

Italian Studies

he interdisciplinary minor in Italian studies consists of five courses: three courses in Italian (231, 250, and 290) and two courses from the following group*: Fine Arts 301, Italian Renaissance Art; Fine Arts 303, Baroque Art; Music 104, History of Opera; Music 351, Seminar in Medieval and Renaissance Music; History 232, Modern Italy; Political Science 275, 276, Studies in Modern European Politics.

Note: One independent study may be chosen in place of one of the electives from the above list. Students who have spent a year in Bologna and have done a research project under the supervision of a faculty member in Italy (Bologna Practicum) may include this course in their interdisciplinary minor or major. Successful completion of the Italian 220 or 225 may also be included.

*Elective course selections must be approved, and the completion of the minor certified, by the coordinator of the program. Students are strongly advised to meet with Professor Davidson as soon as they have decided to declare their major and if at all possible before their junior year if they plan to go abroad.

Contributing Faculty:

Sylvia G. Davidson, Associate Professor of Romance Languages, Coordinator Angelo Spina, Instructor in Italian

Japanese

apan's relationship to the United States and the rest of the world is so significant that it becomes increasingly helpful to acquire the linguistic skills that enable one to gain a fuller access to this important cultural, economic, and political force.

The four-semester sequence is intended for students with limited or no prior knowledge of Japanese. The goal is to provide the student with the essential tools for conversation, reading, and writing in modern Japanese, and with a useful research tool in other fields of study.

Students are encouraged to study in Japan at the Dickinson College Program at Nanzan University during their junior years. Participation in this program provides an excellent opportunity for students to increase their language skills as well as to deepen their understanding of various aspects of Japanese culture and life.

Study of Japanese is an integral part of such majors as East Asian studies and international studies. Although there is no major or minor offered in Japanese language, completion of the four-semester sequence fulfills the College's foreign language requirement.

Faculty:

Roselee Bundy, Assistant Professor of Japanese Language and Literature. Ph.D., University of Chicago. Her field of specialization is classical Japanese literature with emphasis on poetry and poetics. Her research and teaching interests include Japanese women's literature, classical Japanese art and aesthetics, and the modern Japanese novel.

Courses:

101-102. **Elementary Japanese** An intensive study of the fundamentals of Japanese grammar with an eye to developing reading, writing, speaking, and understanding skills.

211, 212. **Intermediate Japanese** Further development of the basic skills acquired at the elementary level.

231, 232. **Advanced Japanese** Advanced practice in reading, writing, speaking, and understanding Japanese.

(See East Asian Studies.)



Judaic Studies

Latin

See Classical Studies

udaic Studies provides an interdisciplinary major designed to allow broad comprehension of Jewish civilization in its interaction with the civilizations of the ancient and modern world and in particular the Middle East. The major prepares students for further study or careers in Judaica and related vocational pursuits.

Latin American Studies

Contributing Faculty:

Stanley N. Rosenbaum, Associate Professor of Religion and Classics, Coordinator

Harry F. Booth, Thomas Bowman Professor of Reli-

Daniel R. Bechtel, Professor of Religion

Major:

- 1. Required courses:
 - a. Hebrew 211, 212, Second Year Biblical Hebrew
 - b. Religion 103, Intro. to the Old Testament
 - c. Religion 204, 205, History of the Jews. Both semesters should be completed by the student's senior year.
- 2. One of the following pairs of courses:
 - a. Religion 116, 216, Jews and Judaism in U.S., 1654; American Jewish Fiction
 - b. Religion 104, 306, Introduction to Judaism; Studies in the Jewish Tradition: Principles and Topics in Jewish Law
 - c. History 190, Historical Method; History 315, Arab-Israeli Conflict
 - d. Religion 108, 109, Emergence of the Christian Tradition; Emergence of the Protestant Tradi-

(Suitable equivalent pairs may be used.)

- 3. One upper level seminar or independent study, with approval of the director.
- 4. Two additional courses congruent with the direction of student's major interest within the field

Note: See coordinator for further courses acceptable toward the major.

he Certificate Program in Latin American Studies is intended to allow students with varying interests and academic majors (such as history, economics, education, fine arts, political science, international studies, anthropology, and Spanish) an opportunity to develop an understanding and appreciation of Latin American civilization. It also provides students the opportunity to work closely with a core of professors with special training, experience, and enthusiasm in this field. The program offers a valuable preparation for those planning graduate work to become teachers, social workers, government officials, or managers in private business enterprises active in Latin America. The certificate also provides an advantage to students in seeking admission to graduate programs specifically concerned with Latin America.

Achievement of the certificate in Latin American Studies requires (1) the successful completion of Latin American Studies 201; (2) completion of six other approved courses or independent studies dealing with Latin America taken in at least three academic departments, e.g., Anthropology 221 and 222, Economics 349, Political Science 251, Spanish 232 and 242, etc.; (3) demonstrated language proficiency in Spanish or Portuguese, equivalent, as a minimum, to the completion of a 200-level conversation and composition course; (4) the completion of an interdisciplinary research paper written under the supervision of at least two faculty members from different departments, and for which one course credit, one-half in the fall and one-half in the spring semester, will be offered under Latin American Studies 490 taken in the fall and spring semesters of the senior year; and (5) the successful oral defense of the research paper before a committee of at least three program professors. Participation in the Mexico City Program of the Institute of European Studies or an equivalent study-abroad experience is encouraged but not required.

Contributing Faculty:

Kjell I. Enge, Assistant Professor of Anthropology, Coordinator

Arturo Fox, Professor of Spanish

Enrique J. Martinez-Vidal, Professor of Romance Languages

Charles A. Barone, Associate Professor of Economics J. Mark Ruhl, Associate Professor of Political Science Keith Brower, Assistant Professor of Spanish and Portuguese

Sinan Koont, Assistant Professor of Economics Sylvia Carullo, Assistant Professor of Spanish

Courses:

201. Introduction to Latin American Studies A multi-disciplinary, introductory course designed to familiarize students with Latin American societies through a study of their history, economics, politics, literature, and culture. The purpose of the course is to provide a framework or overview to enhance understanding in the students' future courses in particular disciplines and specific areas of Latin American study. No prerequisite, required of all Latin American certificate candidates.

490. Latin American Interdisciplinary Research Research into a topic concerning Latin America directed by two or more faculty representing at least two disciplines. Students must successfully defend their research paper to obtain course credit. The paper is researched and written in the fall semester for one-half course credit and then defended and revised in the spring semester for the other half credit. Designed to satisfy requirement four (4) of Latin American Certificate Program. *Prerequisite: seniors in the program.*

Note: Students must apply to the Latin American Studies Certificate Program by the beginning of their junior year.

Library Resources

Believing that education has more to do with the learning process than it does with the acquisition of specific knowledge, the college librarians are eager to assist Dickinson students to think critically about their information needs, to learn how to do a logical search, and to evaluate materials located for a particular project. Instruction in these skills, necessary for the successful pursuit of the liberal arts, takes place in the library when individual students ask for help; in freshman seminars; in bibliographic instruction sessions in a variety of courses; and in workshops in the library.

Skill in the location, evaluation, and use of recorded information is crucial not only to success in the educational enterprise at Dickinson, but also to continued success as students move on to graduate school and into the world of work. The Department of Library Resources is dedicated, therefore, to providing Dickinson students with the cognitive skills they will need to fulfill their information needs throughout their lives.

Faculty:

Joan M. Bechtel, Librarian. M.S. in L.S., Drexel University; M.A., University of Pennsylvania. The core of her scholarly interests is in European intellectual history, particularly in the Renaissance and Reformation periods. Her current research on women in 16th century England grows out of her work with John Foxe's Book of Martyrs as it reflects the social history of the period.

Annette LeClair, Librarian. M.A., University of Virginia; M.S. in L.S., University of North Carolina. Her primary library responsibility is for the development of the computerized library catalog, AutoCat, and her current research interests are in the literature of travel. (On leave 1989-90)

Sue K. Norman, Librarian. M.A., SUNY at Albany; M.A. in L.S., University of Iowa. She divides her



time between the cataloging and reference areas of the library. Her language study (French, Russian, Portuguese, and Spanish) attest to her interest in linguistics. Other research interests and activities include the illiteracy problem in the U.S. and Pennsylvania, poetry, and music.

Ella M. Forsyth, Librarian. Chairwoman. M.M., Mount St. Mary's College, Los Angeles; M.L.S., University of California at Los Angeles. Her primary responsibilities are in reference, government documents, and cataloging. Her interests include music performance and music bibliography.

John C. Stachacz, Librarian. M.A., M.S.L.S. University of Kentucky. His major assignments in the library are reference, periodicals with principal oversight of the audio-visual room, and data base searching. His interdisciplinary interests include political and agricultural geography and environmental studies.

Scott van Jacob, Librarian. M.S., Western Oregon State College; M.S.L.I.S., University of Illinois. His primary responsibilities are in cataloging and reference. His current research interests are in dance bibliography and Latin American studies.

Steven F. Vincent, Librarian. M.S.L., Western Michigan University; M.A., Western Michigan University. His primary responsibilities are in cataloging and reference. His current research interests are in library collection maintenance and medieval libraries.

Courses:

101. Introduction to Library Research A study of the resources of a college library including books, periodicals, indexes, abstracts, bibliographies, U.S. government documents, manuscripts, and reference sources in the various disciplines. Particular attention is given to effective research strategies, and to selection and evaluation of sources. *One-half course credit*.

Mathematics and Computer Science

uring the 5,000-year history, mathematics has flourished when the general level of civilization has flourished and never so much as in our Western civilization at the present time. It has been a spring of delight and source of wonder to all with eyes to see and minds to grasp, a source of understanding of the world around us, and increasingly of the world within us. In subject matter, mathematics varies considerably. Parts and the whole are articulated and stand in definite relations to one another; numerical and geometric relations are the most familiar but by no means the only examples. These sciences are logical; properties are soundly inferred from fundamental ones and so their conclusions are universally valid, which implies that they are not to be upset by any developments in the special sciences.

While the roots of computer science may be traced back perhaps a century, increasingly the discipline is founded on the convergence of a variety of highly specialized fields: mathematics, electrical engineering, cognitive science, and logic. It is generally recognized that programming and hardware forms the core of this discipline, but even more importantly computer science is highly developed problem-solving activity. Therefore, computer science is not simply computing. Fundamentally, it is concerned with language and how machines may be made to "think." Questions deal with the structure of (programming) languages, algorithms and how data is organized, symbolic computation, computing architectures and the interaction of humans with their machines, the nature of (artificial) intelligence, machine robotics, visual graphics, among others.

Courses in this department are organized into two major programs, mathematics and computer science. Students select courses from either or both fields, and frequently complete a double major in both areas. In general terms, the programs start with the more immediately applicable (Calculus and Introduction to Computer Science), develop intermediate themes (Analysis, Abstract Algebra, Programming Languages, Computer Architecture), branch out in other directions as appropriate to personal interests (Statistics, Operations Research, Artificial Intelligence, Computer Graphics), and finally return to foundational questions (Analysis, Topology, Discrete Structures).

A major in this department is strengthened by a diverse and strong academic program, low student/ faculty ratio, close personal contact with faculty at all levels, and modern computing facilities. Once adequately prepared, students are encouraged to pursue independent study and research under faculty guidance. The department houses a library, student study areas, and, in addition to the College's campus-wide, ethernet computing system, its own local-area network with several main-processors.

Faculty:

Lee W. Baric, Professor of Mathematics. Ph.D., Lehigh University. His research interests lie in Schauder bases in Banach spaces and in sequence spaces and summability. He is also conducting research in electronics, specializing in the design of filters utilizing piezo-electric crystals.

Jack R. Stodghill, Associate Professor of Mathematics. Ph.D., Brown University. His scholarship has centered on the representation theory of Line algebras and in particular on the Adams operators. His current research concerns the linearity aspects of mathematics and such closely related areas as statistics.

E. Robert Paul, Associate Professor of Computer Science and History of Science. Chairman. Ph.D., Indiana University. His scholarship involves computer graphics and microcomputer architecture, algorithmic processes, social uses of computing, and history and philosophy of science. His most recent research deals with computer graphics, conceptual impact of computing, and shifting paradigms in emerging scientific frameworks. (On leave 1989-90)

Nancy H. Baxter. Associate Professor of Mathematics and Computer Science, Ph.D., Rutgers University. Her scholarship has concentrated in the area of applications of non-linear functional analysis to numerical analysis. Her current research includes programming languages, with particular emphasis on using computers to teach abstract mathematical concepts.

Jane Hill, Associate Professor of Computer Science. Ph.D., University of Massachusetts. Her special interests include natural language processing, computational linguistics, and the contributions of Artificial Intelligence to Cognitive Science. An ongoing research project is the development of a computational model of early language acquisition.

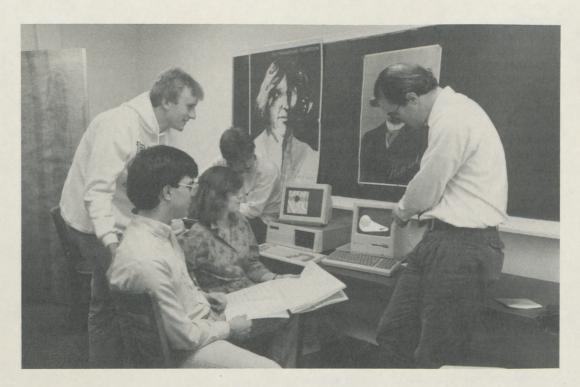
Thomas L. Drucker, Assistant Professor of Mathematics. Ph.D., University of Wisconsin. His scholarship involves mathematical logic and the foundations of mathematics.

David A. Hastings, Assistant Professor of Mathematics and Computer Science. Ph.D., University of Massachusetts. His scholarship involves the analysis of operating systems and computer system configurations. His current research is in the application of queueing network theory for system modeling.

Computer Science

131, 132. Computer Science An introduction to Computer Science as a major scientific discipline. The first half emphasizes problem solving using the programming languages ISETL and Modula-2, development of algorithms, elementary searching and sorting, and surveys computer architectures and operating systems. The second half emphasizes elementary data structures (stacks, queues, lists), recursive programming, simulations, and surveys numerical and symbolic computation, database techniques, and artificial intelligence. (Three hours classroom and two hours laboratory a week. Both 131 and 132 satisfy the third science requirement.)

- 203, 204. Special Topics Topics to be announced when offered. Prerequisite: permission of the department. One-half or one course.
- 231. Information Structures The representation. manipulation, and use of such structures as stacks, queues, lists, trees, and graphs; the organizing of information; file processing and information retrieval considerations. Prerequisite: 132.
- 241. Programming Language Structures Basic properties and special facilities of such higher level languages as Pascal, Modula-2, FORTRAN, LISP, PROLOG, SETL, and SNOBOL; data types, scope rules, block structure, procedure calls and parameter types, storage allocation considerations. Prerequisite: 231.
- 251. Structure of Computers and Assembly Language Programming Computer architectures, data representation, machine arithmetics, conventional machine level instructions, assemblers and loaders; an introduction to assembly language programming. Prerequisite: 231.
- 256. Microcomputer Control A practical introduction to basic digital electronic design and analog to digital conversion techniques as well as microcomputer architecture and assembler programming. Topics are integrated in a final project involving the development of software and electronic circuits for computer-based control functions. Class and laboratory work totals six hours per week. Prerequisite: 231 and Physics 255. (Also listed as Physics 256.)
- 282. Numerical Methods A study of algorithms for the efficient approximation of definite integrals by numerical quadrature, the solution of non-linear equations, of linear systems of equations, and of the solution of differential equations. Prerequisite: 132 and Mathematics 261. (Also listed as Mathematics 282.)
- 311. Discrete Structures Logic and computability, elementary algebraic structures, design and construction of finite state machines, and theory of graphs. Prerequisite: Mathematics 211 and Computer Science 132. (Also listed as Mathematics 311.)



312. Theoretical Computer Science One or more of formal languages, formal logic, computational complexity, and analysis of algorithms. Prerequisite: 311. (Also listed as Mathematics 312.)

354. Operating Systems A survey of operating systems software; batch, multitasking and time-sharing operating systems. Process management and scheduling, memory management and addressing; filing systems. Prerequisite: 251 or permission of the department.

358. Computer Architecture and Logical Design Introduction to the logical design of digital networks. Topics include coding; data representation; arithmetic and logical design using combinational and clocked sequential networks; instructions and addressing; internal and external memories. Included will be an introduction to the design of 8/16/32-bit microprocessors. Knowledge of electronics is not required. Prerequisite: 251 or permission of the department, and Mathematics 211.

364. Artificial Intelligence Application of computers to tasks that are usually considered to demand human intelligence. Topics include natural language parsing, search techniques, game playing, problem solving, learning, pattern recognition, and understanding. Introduction to LISP or PROLOG. Prereguisite: 231, and Mathematics 211.

374. Computer Graphics Foundation and mathematics of computer graphics systems, including 2- and 3-dimensional techniques of line and block diagrams, solid and surface figures, display algorithms, and hardware implementation. Use of high-resolution color vector and raster systems. Prerequisite: 231 and Mathematics 211.

378. Information Systems Relational, hierarchic, and network models in data base management; data definition languages and data manipulation languages; systems analysis; natural language processing and human information processing may be considered if time permits. Prerequisite: 231.

403, 404. Special Topics Topics to be announced when offered. Possibilities include Simulation, Networks, and Compiler Design. Prerequisite: permission of the instructor. One-half or one course.

406. Senior Seminar An in-depth examination of the phenomenon of the computer both as a concept and as a machine. Includes a treatment of selected ethical, intellectual, and philosophical issues. A substantial project at the meta-computing level will be required of each student. Prerequisite: any two 300-level courses, and senior standing in computer science.

Major:

At least eight courses numbered above 204 including:

- (1) the four core courses: 231, 241, 251, and 311;
- (2) any two of the following: 312, 354, 358, 364,
- (3) one other 300-level computer science course or a course in a field of application as approved in advance by the department;
- (4) 406, or another computer science senior seminar.

The core should be completed as early as possible prior to undertaking 300-level courses. In addition, Mathematics 162, 211, and 222 are required and should normally be completed by the beginning of the junior year.

Minor:

Six courses in computer science including 231, 241, and 251.

Note: Computer Science 282, 312, 354, 358, 364, 374, and 378 are given in alternate years. For exact scheduling, check with the department.

Mathematics

- 110. Mathematical Modeling Introduction to the methodology of modeling as a technique useful in working towards the solution of real world problems. A variety of mathematical tools will be utilized at an elementary level. This course will not count toward the requirements of a major or minor.
- 121. Elementary Statistics An introduction to statistical inference, including such topics as measures of central tendency and dispersion, tests of hypotheses, and correlation. This course will not count toward the requirements of a major or minor.

- 151-152. Calculus I with Review An introduction to the basic concepts of the differential and integral calculus. The calculus content is the same as Mathematics 161, but it is augmented by a review of algebra, geometry, and mathematical analysis. Prequisite: recommendation of the department. Counts as a single course toward the major or minor; distribution III credit given only for 152.
- *161, 162. Calculus I, II Derivatives and integrals of functions of one variable with such applications as maxima and minima, curve tracing, velocity and acceleration, and area and volume. Brief introductions, as time permits, to differential equations, series, and functions of two variables.
- 201, 202. Special Topics Topics to be announced when offered. Prerequisite: permission of the instructor. One-half or one course. May count toward the major if so announced in advance.
- 211. Discrete Mathematics An introduction to set theory, logic and Boolean algebra, switching networks, linear algebra, graphs, automata, and grammars. Prerequisite: 162, and Computer Science 131.
- 222. Probability Elementary probability concepts for finite, discrete, and continuous probability spaces; counting methods, random variables and expected values; some common probability distributions; joint probability distributions. Prerequisite: 162.
- 261. Calculus III Multivariate calculus including vectors and vector-valued functions, functions of several variables, partial differentiation, and multiple integration. Prerequisite: 162.
- 262. Introduction to Linear Algebra A study of matrices, determinants, vector spaces, linear transformations and inner products, and applications to different fields such as differential equations and geometry. Prerequisite: 261, or permission of the department.
- 282. Numerical Methods A study of algorithms for the efficient computer approximation of definite integrals by numerical quadrature, the solution of nonlinear equations, of linear systems of equations, and of the solutions of differential equations. Prerequisite: 261 and Computer Science 132. (Also listed as Computer Science 282.)

- 311. **Discrete Structures** Logic and computability, elementary algebraic structures, design and construction of finite state machines, and theory of graphs. *Prerequisite: 211 and Computer Science 132. (Also listed as Computer Science 311.)*
- 312. **Theoretical Computer Science** One or more of formal languages, formal logic, computational complexity, and analysis of algorithms. *Prerequisite: 311.* (Also listed as Computer Science 312.)
- *321, 322. **Statistics** An introduction to the mathematical theory of probability and statistics, including a study of probability distributions and their parameters, statistical inference, tests of significance, estimation, and tests of hypotheses. *Corequisite: 361.*
- 331. **Operations Research** Uses of linear optimization models, solutions of linear systems of inequalities, the simplex algorithm, duality theory, and sensitivity analysis. The last quarter may be concerned with an additional topic such as dynamic programming or decision analysis. *Prerequisite: 262.*
- 332. **Topics in Operations Research** Topics to be chosen from the following areas: decision analysis, utility theory, cost benefit analysis, statistical decision theory, graph theory, game theory, and group decision making. Topics will vary from year to year. *Prerequisite: 261.*
- *341, 342. **Mathematical Physics** Analytical and numerical techniques for the mathematical analysis of physical phenomena. Topics include advanced vector analysis and matrix methods, techniques for solving ordinary and partial differential equations used in physics, the solution of boundary value problems, the properties and use of functions of a complex variable, Green's functions, Legendre polynomials and Bessel functions. *Prerequisite: 262 and Physics 132. (Also listed as Physics 341, 342.)*
- 351. **Algebraic Structures** An introductory treatment of fundamental algebraic structures such as groups, rings, and fields. *Prerequisite: 262*.
- 352. **Linear Algebra** An introduction to dual spaces, canonical forms and decomposition theorems, operations on inner product spaces, and additional topics, if time permits. *Prerequisite: 262*.

- *361, 362. **Analysis I, II** The real number system, limits, continuity, convergence, differentiation, integration, infinite series, and higher dimensional calculus. *Prerequisite: 262.*
- 472. **Complex Analysis** An introductory study of functions in the complex plane. Topics will include: complex numbers and functions, the theory of differentiation and integration of complex functions; Cauchy's integral theorem; the Residue theorem; conformal mappings. *Corequisite: 362*.
- 481. **Topology** An elementary study of metric and topological spaces touching upon open and closed sets, compactness, and connectedness. *Corequisite:* 362.
- 401, 402. **Special Topics** Topics to be announced when offered. *Prerequisite: permission of the department. One-half or one course.*

Major:

At least eight courses numbered above 202 including:

- (1) the four core courses: 261, 262, 361, and 362;
- (2) algebraic structures 351;
- (3) one of the following: 472, 481, or another analysis course;
- (4) two other mathematics courses, at least one of which must be at the 300-level.

Mathematics 361 and 362 should be completed no later than the junior year. In addition, Computer Science 132 is required and should normally be completed by the beginning of the junior year.

Minor:

Six courses in mathematics including 361.

Note: Mathematics 282, 312, 321, 322, 331, 332, 352, 472, and 481 are given in alternate years. For exact scheduling, check with the department.

Military Science

he Department of Military Science (Army Reserve Officers' Training Corps) adds another dimension to a Dickinson College liberal arts education by offering courses which develop a student's ability to organize, motivate, and lead others.

Participation in military science courses during the freshman and sophomore years results in no military obligation. Courses during these years orient students on the various roles of Army officers. Specifically, these courses stress self- development, written and oral communication skills, leadership, bearing, and self-confidence.

Individuals who elect to continue in and successfully complete the program during their junior and senior years will receive a commission as a second lieutenant in the U.S. Army upon graduation. They will be required to serve four months to four years in the active Army, depending upon type of commission.

The following courses are required to satisfactorily complete the Army ROTC program: Freshman Year, Military Science 101, 102; Sophomore Year, Military Science 201, 211; Junior Year, Military Science 321, 301; Senior Year, Military Science 401, 431.

Students must also take Military Science 111 (U.S. Military History), an advanced writing course, a course in human behavior, a course in computer literacy, a course in math reasoning, and a foreign language course.

Options are available for those individuals who encounter scheduling conflicts or who desire to begin participation after their freshman year. Contact the department for further information.

Program participants may take part in various enrichment activities during the academic year: rappelling, rifle marksmanship, cross-country skiing, whitewater rafting, leadership exercises, land navigation, and formal social functions. Program participants may also apply for special Army training courses during the summer: Russian language, airborne, air assault, and northern warfare schools.

Although some military science graduates make a career out of the U.S. Army, most use their rigorous, Army leadership and management experiences as a springboard for high-powered careers as entrepreneurs, corporate officers and managers, attorneys, and government executives.

Faculty:

William D. Wilgus, Professor of Military Science. M.A., Webster University. Lieutenant Colonel, U.S. Army, Aviation. Assignments include staff positions at various levels with emphasis in aviation and transportation management. Academic directions have been in the management field.

John R. Dabrowski, Assistant Professor of Military Science. M.A., East Stroudsburg University. Captain, U.S. Army Reserve, Infantry. Instructs first year military science and military history. Research has centered on modern European history and specifically the second world war.

Gregory A. Miller, Instructor in Military Science. M.Ed., Western Maryland College. Captain, Pennsylvania National Guard, Field Artillery. Instructs third year Military Science and Tactics. His assignments include Company Command and Staff positions in Field Artillery and Armored Cavalry.

Advanced Leadership Practicum: A six-week summer training program at an Army installation which stresses the application of military skills to rapidly changing situations. Participants are evaluated on their ability to make sound decisions, to direct group efforts toward the accomplishment of common goals, and to meet the mental and physical challenges presented to them. Completion of this practicum is required prior to commissioning and it is normally attended between the junior and senior years. Participants receive room, board, travel expenses, and medical care, and pay for the six-week period.

Financial Assistance: Books and equipment for military science courses and the ROTC program are provided free of charge to all cadets. All juniors and seniors in the ROTC program (advanced course) and scholarship cadets are paid a tax-free subsistence allowance of \$100 a month and receive certain other benefits.

Physical Education Credit: Physical education activity units for military science may be earned for summer camp (two units) and for completion of both junior and senior year levels of military science leadership laboratory (one unit).

Scholarships: Army ROTC scholarships based on merit are available. Recipients receive full tuition, academic fees, a semester book and supply allowance, and a \$100 per month subsistence allowance. High school seniors may apply for four-year scholarships. At the start of the spring semester, Dickinson students (whether or not enrolled in the program) may compete for three-year (starts in sophomore year), and two-year (starts in junior year) scholarships. Information may be obtained from high school counselors, any army ROTC professor of military science, or any army installation. Recipients agree to a service obligation. Scholarships are also available for students entering medical school or pursuing graduate studies in the basic health sciences. Selected ROTC graduates are also eligible for scholarships to pursue graduate studies in other academic disciplines. For additional information contact the chairman, military science department.

Corresponding Studies Program: Students participating in an off-campus study program in the U.S. or abroad may continue participation in either the army ROTC basic course or advanced course and receive the same course credit and benefits as a student enrolled in the on-campus program. Army ROTC scholarship students are also eligible to participate in this program. For more information contact the chairman, military science department.

Non-Dickinson Students: Students pursuing a baccalaureate or advanced degree program at nearby colleges are eligible to cross-enroll in the Dickinson College ROTC program. These schools have registration or transfer procedures which allow full or partial credit toward graduation for military science courses taken through Dickinson. Contact this department for further information.

Courses:

101, 102. **Introduction to Military Science** Emphasis on developing self-confidence and bearing. Instruction in the Army professional ethic, organization and role of the Army, organization and role of the

Army Reserve and Army National Guard, customs and traditions of the service, role of the officer and non-commissioned officer, and career opportunities in each of the branches. Students will determine the characteristics and traits of a leader as well as a code of ethics. Meets one hour per week each semester. Also four to six Saturdays of voluntary adventure training and one formal social event each semester.

111. American Military History Survey of American military history from the initial settler/Indian conflicts to the post-Hiroshima, post-Vietnam world of today. Critical analysis of the changes in the ways American armies fought, organized to fight, and planned to fight the enemy. Also includes a study of the evolution in strategic thinking, civil-military relations, and the status of reserve forces. *One course credit*.

201, 202. Application of Military Science Advanced instruction in topics introduced in the first year. Participation in operations and basic tactics to demonstrate leadership problems and to develop leadership skills. Meets two hours per week each semester. Also four to six Saturdays of voluntary adventure training and one formal social event each semester.

211. **Organization and Management** Concepts of organization theory and the principles of management. Management and leadership relationships are investigated as they apply to the general theory and practice of the management functions of planning, organizing, staffing, direction, coordination, control, innovation and representation. *One-half course credit*.

301, 302. Advanced Application of Military Science Emphasis on leadership. Situations require direct interaction with other cadets and test the student's ability to meet set goals and to get others to do the same. Students master basic tactical skills of the small unit leader. Meets two hours per week and selected weekends each semester. *Prerequisite: open only to advanced course cadets*.

321. Leadership and Management Principles and techniques of effective leadership, methods of developing and improving managerial abilities and leadership qualities, and a basic understanding of interpersonal interactions. Use is made of recent developments in the administrative and the behavioral



sciences to analyze the individual, group, and situational aspects of leadership, and the management of resources. *One course credit.*

401, 402. **Command and Staff** Emphasis is placed on developing planning and decision-making capabilities in the areas of military operations, logistics and administration. Meets two hours per week and selected weekends each semester. *Prerequisite: open only to advanced course cadets*.

431. **Contemporary Problems Seminar** Seminars in selected areas emphasizing the interplay of multifarious considerations in exploring the environment of the contemporary American scene, and the position of the U.S. in the world. Normally seminars will be offered in two major areas.

a. Civil-Military Relations—Examines the contemporary U.S. as it relates to the decision-making pro-

cess affecting the U.S. military establishment. Emphasis is on the interdependence of military, social, legal, and ethical considerations in forming policies, as well as the interchange of influence, the military on society and society on the military. Normally, three problems are examined; these change by semester. Professors from other departments participate as discussion leaders. *One course credit.*

b. Comparative National Security Policies— Examines the national security policies and postures of the United States, Soviet Union, People's Republic of China, and selected other nations. Emphasis is placed on discovering (through independent study, discussion, and common readings) the features common to all major powers so their differences can be better understood. *One course credit*.

Dickinson College Military Science 115

Music

ourses in music and faculty-directed ensembles are offered in the belief that the art of music is an essential aspect of a person's personal, social, and cultural evolution, being a manifestation and reflection of the deepest and most exalted thought and feeling throughout the ages. The art of music is considered in terms of its participation in the intellectual, aesthetic, and spiritual life of the human family. Instruction in music and membership in musical ensembles are offered both to students whose interest is of a general nature and to those who anticipate graduate or professional study. The offerings of the department are designed to enable students to follow a balanced and complementary program of study in four dimensions of music: the study of the literature of music and its cultural context; training in music theory and composition; individual instruction in most instruments, and in voice; and participation in vocal and instrumental ensembles. The goal of the music program is to endow students and participants with lasting understanding and enjoyment of the riches of our musical heritage.

Recent graduates from the Department of Music are professional performers in symphonic ensembles, teaching on the secondary and college level, active in the fields of arts management and music publications and sales, and are music librarians.

Faculty:

Truman Bullard, Professor of Music. Ph.D., Eastman School of Music of the University of Rochester. He teaches courses in music history and theory, conducts the Choir and Chamber Choir, and is a bassoonist and pianist. His special courses are in baroque and contemporary music, and his research interests are Russian music and culture and American jazz.

J. Forrest Posey, Associate Professor of Music. M.A., Harvard University. Professor Posey offers courses in the history of music, specializing in Medieval, Renaissance, and the 20th-century music, in music theory, and in composition. He plays the lute, re-

corder, and krummhorn, and offers instruction in these and several other early instruments. His research interests are in early music and in its performance practice, and he is active as a composer of electronic and experimental music. (On leave 1989-90)

Frederick Petty, Associate Professor of Music. Chairman. Ph.D., Yale University. He teaches courses in music history with specialization in opera and music of the classic and romantic eras. He conducts the College-Community Orchestra, and the Wind Ensemble, and plays the French horn. He is an active scholar in the field of 18th century Italian opera and is the music director of the Harrisburg Civic Opera.

Pong-Hi Park, Senior Artist Faculty in Piano. M.A., Peabody Conservatory of Music. She teaches piano and is a highly acclaimed concert pianist. She performs frequently as soloist, with orchestra, and in chamber ensembles in major cities and colleges.

Beth Bullard, Director of the Collegium Musicum and Artist Faculty in Music. Ph.D., University of Pennsylvania. She teaches music history, flute (Baroque as well as modern), and a course on the music of India. Her research interests include Renaissance studies, the history of musical instruments, baroque performance practice and women instrumentalists in 19th century American society.

Brenda Smith, Senior Artist Faculty in Voice. M.M., Westminster Choir College. She teaches studio voice, specializing in art song and oratorio as well as operatic repertoire. She performs frequently in solo recitals, opera and oratorio performances in the United States, West Germany, and Switzerland. She maintains a special interest in German music and literature as demonstrated in scholarly writings and translations. (On leave Fall 1989)

Anita Ranucci Brandon, Part-time Instructor in Applied Music. M.M., University of Arizona. She teaches oboe, clarinet, saxophone, and bassoon. She plays principal oboe with the York Symphony.

John Eaken, Part-time Instructor in Applied Music. M.M., Temple University. He offers instruction in the concert violin. He appears each year with major orchestras and in solo recitals and is the winner of several solo competitions and awards.

Nathaniel Gunod, Part-time Instructor in Applied Music. M.M., Peabody Conservatory of Music. He teaches classical guitar and directs the Guitar Ensemble. He performs extensively on the eastern seaboard as a soloist and in the Gunod-Rosser Duo, with Amy Rosser, harpsichordist. He is associate director of the National Guitar Summer Workshops in Connecticut and California.

John W. Jones, Part-time Instructor in Applied Music and Director of the Jazz Ensemble. M.Ed., Towson State University. He teaches trombone and offers courses in jazz improvisation and composition. Conductor of Symphonic Band.

Amy Rosser, Part-time Instructor in Applied Music. M.M., Peabody Conservatory of the Johns Hopkins University. She teaches harpsichord and coaches chamber music. She studied with Kenneth Gilbert in Paris, France. She is a member of the Baltimore based

Baroque chamber ensemble, Pro Musica Rara, and member of a guitar and harpsichord duo.

Nancy Baun, Part-time Instructor in Applied Music. B.M., New School of Music in Philadelphia. She teaches cello and is a member of La Musica, the Eaken Piano Trio, and the Commonwealth Quartet. She appears in numerous chamber music ensembles and as soloist with many symphony orchestras, and is an avid recitalist.

Courses:

100. The Art of Music An introductory course intended for those students with little or no previous knowledge of music. Representative works from all periods and styles are studied in such a way as to emphasize the acquisition of permanent listening skills. This course fulfills the distribution requirement for humanities (arts), but does not count toward the major.



Dickinson College Music 117

- 101, 102. **History of Music** An introductory course in music designed to train students in intelligent listening through a chronological discussion and analysis of selected representative works from plainsong through contemporary music.
- 103. **20th Century Music** A survey of the major trends in music during the 20th century. *Prerequisite:* 101 or 102 or permission of the instructor.
- 104. **History of Opera** A survey of operatic literature from its inception to the present. *Prerequisite: 101 or 102 or permission of the instructor.*
- 105. **Instrumental Music** A discussion of selected topics in instrumental music, e.g., symphonic literature, chamber music, and keyboard literature. The content of the course will be altered from year to year in order to provide a diversity of subject matter. *Prerequisite:* 101 or 102 or permission of the instructor.
- 106. **Vocal Music** A discussion of selected topics in vocal music, e.g., choral literature and history of the art song. The content of the course will be altered from year to year in order to provide a diversity of subject matter. *Prerequisite:* 101 or 102 or permission of the instructor.
- 107. **Biographical Studies** A study of the life and works of a major composer, e.g., Bach, Beethoven, Mozart, or Bartok. The content of the course will be altered from year to year in order to provide a diversity of subject matter. *Prerequisite:* 101 or 102 or permission of the instructor.
- 108. American Jazz A study of the roots of jazz in social, cultural and artistic dimensions followed by a chronological survey of the evolution of jazz styles from the late 19th century to the present. *Prerequisite:* 101 or 102 or permission of the instructor.
- 109. Music of India A study of the basic principles and cultural context of Indian classical music, a system that has inspired Western jazz, rock, and classical musicians since the 1950s. The music of several other cultures will be touched upon as well. This course satisfies the comparative civilizations requirement. Prerequisite: 100 or 101 or 102 or previous applied music experience or permission of the instructor.

- 113-114. **Applied Music Instruction I** Open to all students who demonstrate by audition some acquaintance with musical notation, and who should continue to study instrument or voice at the basic level. *One-half or one course each semester. Placement by audition.* Does not fulfill distribution requirements.
- 125, 126. **Theory of Music I** An introduction to the basic materials of music by means of discussion, analysis, and written exercises, complemented by intensive drill in sight singing, ear training, and keyboard harmony. Students are acquainted with some characteristic means of organizing these materials through firsthand contact with simple problems in melodic, contrapuntal, and harmonic techniques. *Prerequisite: permission of the instructor.*
- 213, 214. **Applied Music Instruction II** Open to students who demonstrate by audition a basic technique, and who should continue instruction on the intermediate level. May be repeated for credit with the permission of the instructor. *One-half or one course each semester. Placement by audition. Does not fulfill distribution requirements.*
- 245, 246. **Theory of Music II** Introduction to the basic materials of music continued. Evolution of chromatic harmony in the 19th century and selected techniques in 20th century music. Increased emphasis is placed upon stylistic and critical analysis. *Prerequisite:* 126.
- 313, 314. Applied Music Instruction III Open to students who demonstrate by audition a fully developed technical skill and who should continue study on the advanced level. May be repeated for credit with the permission of the instructor. One-half or one course each semester. Placement by audition. Does not fulfill distribution requirements.
- 351. Seminar in Medieval and Renaissance Music Study of the principal styles and forms of music from plainsong to ca. 1600. Offered every other year. Open to any student with permission of the instructor.
- 352. **Seminar in Baroque Music** Study of the principal styles and forms of music from 1600 to 1750. Offered every other year. Prerequisite: 126 or permission of the instructor.

353. Seminar in Classic and Romantic Music Study of the principal styles and forms of music from ca. 1750 to ca. 1900. Offered every other year. Prerequisite: 126 or permission of the instructor.

354. **Seminar in 20th Century Music** Study of the principal styles and forms of music from ca. 1900 to the present. *Offered every other year. Prerequisite: 126 or permission of the instructor.*

413-414. Repertory and Performance The purpose of this course is to acquaint the advanced student with a broad selection of the repertory for voice or instrument, and to prepare to perform a senior recital which demonstrates an understanding of several musical periods. Prerequisite: Music 100, 101, or 102, Music 313 and 314. Open to seniors with the permission of the music department upon recommendation of the instructor.

495, 496. **Senior Seminar** Studies in composition, music history, and advanced theory, conducted through regular conferences and assigned writing. Open to seniors majoring in music who have demonstrated their ability to pursue independent research in at least two courses from this group: 351, 352, 353, 354. *Prerequisite: permission of the chairman of the department.*

College Choir A mixed choir open through audition to everyone in the college community. Several major choral works are performed each year at Dickinson with the College-Community Orchestra. *Permission of the director required*.

Chamber Choir This select ensemble of 28 voices drawn from the College Choir performs regularly in worship services at the college and travels widely to present secular and sacred music in major cities and colleges. *Permission of the director required*.

Collegium Musicum This organization, composed of two small ensembles (a vocal group and an instrumental one), is dedicated to resussitating musical masterpieces of the past in order to present concerts with historical themes. Recent offerings have included "Music in England: Church and Chapel, Court and Countryside" and "An American Parlor Musicale, c. 1889." Each ensemble meets once a week. *Permission of the director required*.

College-Community Orchestra Open to students and faculty at the college and to instrumentalists from the surrounding area interested in the performance and study of the best in orchestral literature. *Permission of the director required.*

Dickinson Jazz Ensemble 18 to 20 musicians perform classic and contemporary jazz in this group in concerts and for social occasions. Annual concert with nationally-known guest soloist. Performance at Intercollegiate Jazz Festival and The Montreux (Switzerland) International Jazz Festival represent recent accomplishments. *Membership is by competitive audition*.

Symphonic Band Weekly rehearsal by 50 to 60 instrumentalists interested in the study of quality band literature of various musical periods. Six performances per year. *Permission of the conductor is required.*

Chamber Music Ensembles The music department supports several student chamber music ensembles, including a woodwind quintet and a string quartet. These and other ensembles perform regularly at monthly Noonday Concerts.

Major:

Ten courses, including 101, 102, 125, 126, 245, 246, and 351, 352, 353, 354. Music 413 or 414 or an independent study can, if approved by the department, be substituted for one course numbered above 350.

Note: Students planning to major in music should complete 125-126 during their sophomore year.

Minor:

Six courses, including 101, 102, 125, 126 and two additional courses from the following group: 245, 246, 351, 352, 353, and 354.

Dickinson College Music 119

Philosophy

ourses in philosophy present ways of thinking about those fundamental questions which continue to puzzle us in spite of all our learning. What is it to be human? Can we justify our values? Is truth possible? Does history have or make any sense? What sort of society is truly just? Philosophers see questions like these cutting across the boundaries of science, art, politics, and religion, crucial to all these fields yet belonging to none of them, and demanding that we reflect on all our experiences and beliefs in order to put forward answers.

Because it poses serious questions about ideas we might otherwise take for granted, philosophy has always been central to liberal education. The philosophy program at Dickinson stresses a balanced approach to three main tasks: (1) understanding the sorts of questions philosophers ask; (2) critically evaluating the methods, ideas, and sorts of evidence that have gone into the attempts to answer these questions; and (3) making the transition from criticism to original thought, where the questions have become truly one's own. We stress analysis of primary sources and the ability to see philosophical issues in their proper historical and cultural contexts.

Recent graduates of the program have gone on to advanced studies in philosophy at such institutions as Harvard, University of Chicago, University of Texas, and Vanderbilt. Our alumni have experienced a 97 percent acceptance rate into graduate philosophy programs.

Because it couples rigor of thought with concern for all aspects of the human condition, the study of philosophy has always been regarded as an excellent foundation for a life in public service, education, law, medicine, and any field requiring a creative but critical approach to problem-solving or policy-making.

Since philosophy touches on so many other fields of study, the department encourages double majors or other forms of interdepartmental work and strongly supports courses and programs which combine the perspectives of more than one discipline or which involve different cultural or civilizational perspectives. Typically over half the department's majors combine their philosophical studies with a major in another field.

Faculty:

Cyril Dwiggins, Associate Professor of Philosophy. Ph.D., Northwestern University. Trained in the ancient and medieval traditions as well as in recent continental thought, he teaches in these areas, specializing in phenomenological aesthetics and contemporary approaches to rethinking ethics. He has written on the aesthetics of metaphor, on ethos and ethics in corporate cultures, and on the connections between the aesthetic and the ethical.

Philip T. Grier, Associate Professor of Philosophy. Ph.D., University of Michigan. He teaches a variety of courses in social and political philosophy and in the history of philosophy. He is interested in both contemporary issues and in the history of such traditions as liberalism and Marxism, and is an expert on Hegelianism and Russian philosophy.

Susan M. Feldman, Associate Professor of Philosophy. Chairwoman. Ph.D., University of Rochester. Her interests include the history of modern philosophy, the problem of knowledge and skepticism, philosophy of science, and ethics, both "pure" and "applied" to such areas as the environment and the status of women.

George Allan, Part-time Professor of Philosophy. Ph.D., Yale University. He is interested in how people act, individually or in groups, and what this tells us about what the world is and what it ought to be. He teaches ethics and topics in social philosophy, and has special concerns in American thought, existentialism, and Whitehead's process cosmology. Professor Allan's scholarship is in these areas and in matters related to higher education.

Contributing Faculty:

Harry D. Krebs, Associate Professor of East Asian Studies



Courses:

- 111. **Problems of Philosophy** An introduction to Western philosophy through an examination of enduring questions drawn from primary sources. Considers how major philosophers in the tradition have treated such problems as the nature of mind, the scope of human reason, the assumptions of scientific method, the nature of moral action, or the connections between faith and reason.
- 112. **Ethics** Major theories in terms of which philosophers have tried to make sense of moral problems. The aims are to expand the student's understanding of ethical alternatives, to provide models and methods for thinking about moral dilemmas, and to help formulate and clarify one's own ethical position.

- 113. **Introductory Topics in Philosophy** Introduction to philosophy through the exploration of a specific topic or problem.
- 121. **Logic** Techniques for analyzing the structure and validity of arguments in a natural language such as English. Also, the study of formal systems of logic and proof techniques in such systems.
- 131. **Introduction to Symbolic Logic** Theory and practice in translating arguments into symbolic form and testing for validity by means of truth tables, natural deduction systems, and axiomatic systems. Propositional and predicate logics. Logic of relations. *Usually offered as a self-instructional tutorial.*

Dickinson College Philosophy 121

- 241. Ancient Philosophy The origins of Western philosophy in the emergence of individual mind out of mythic consciousness. Presocratic mythmakers. Plato's myth of Logos. Aristotle's Logos of Nature. Individual and empire in Hellenistic thought. Neoplatonism and Plotinus. Prerequisite: a previous course in philosophy or permission of the instructor.
- 242. Medieval and Renaissance Philosophy Philosophy and the Fathers: the problematic of faith and reason. Universals and universities. The rediscovery of Aristotle. Aquinas. Scotus. Ockham and nominalism. Politics and mysticism in the Renaissance. Prerequisite: a previous course in philosophy; or History 257; or permission of the instructor. Offered every other year.
- 243. Philosophy in the 17th and 18th Centuries Origins of the modern tradition in Western philosophy. Particular emphasis on the problems of method in thinking, the nature and scope of knowledge, the quest for certainty, and views on the nature of reality. Prerequisite: a previous course in philosophy (241 recommended) or permission of the instructor.
- 244. Philosophy in the 19th Century Hegel and Hegelianism. Attempts by thinkers such as Marx, Kierkegaard, and Nietzsche to transcend or abolish speculative philosophy as defined and exemplified in the Hegelian system. Darwin in his context. The end of mechanism. Prerequisite: a previous course in philosophy (243 recommended) or permission of the instructor. Offered every other year.
- 245. **Philosophy in the United States** Philosophies shaping and shaped by the beliefs and practices of the American peoples. Sometimes taught historically (Puritans, Federal period, transcendentalism, social Darwinists, pragmatism, contemporary philosophies); sometimes by focusing exclusively on pragmatism and its critics. *Prerequisite: a previous course in philosophy or American Studies 201 or permission of the instructor.* Offered every other year.
- 246. **Asian Philosophies** Characteristics and problems of thought outside the West. Methods of comparative philosophy. Close examination of works and movements within a major tradition (in different semesters: China, India, Japan, Buddhist schools). *Prerequisite: a previous course in philosophy or permission of the instructor.*

- 251. **Philosophy of Religion** What it means to examine the phenomenon of religion philosophically. Problems which come to light from such an examination, such as the nature of religious experience, the relationship of reason and religion, and the meaning of religious language. Emphasis on the variety of forms in which the phenomenon of religion manifests itself. *Prerequisite: a previous course in philosophy; or major standing in anthropology, sociology, or religion; or permission of the instructor. Offered every other year.*
- 252. **Philosophy of Art** What is a work of art? Inquiries into the nature of art and aesthetic experience and of the meaning of literature and the arts in one's own life and the life of a culture. Conversations with local and visiting artists on special problems. *Prerequisite: a previous course in philosophy; or major standing in a literature, music, or fine arts; or permission of the instructor.*
- 253. **Philosophy of Society** Ways in which one's view of human nature, the human good, and the nature of justice interact in any coherent vision of the structure of a just society. *Prerequisite: a previous course in philosophy or major standing in any of the social sciences.* Offered every other year.
- 254. **Philosophy of Science** Logic and methods of scientific thinking. The impact of science on the contemporary world. Conceptions of theories and of observable facts. The rationality of science and of choice among theories. General questions about knowledge, values, and ultimate beliefs as they relate to the scientific enterprise. *Prerequisite: a previous course in philosophy or major standing in mathematics or any of the natural sciences. Offered every other year.*
- 255. **Philosophy of Law** Fundamental problems such as the nature of law, the justification of legal authority, the relationship between legality and morality, the nature of judicial decision-making, theories of punishment, and issues involved in civil disobedience. *Prerequisite: a previous course in philosophy or major standing in political science. Offered every other year.*
- 261. Intermediate Topics in Philosophy Examination of specific problem, author, text, or movement. Prerequisite: a previous course in philosophy, major standing in a field relevant to the subject matter, or permission of the instructor.

122 Philosophy 1989-90 Catalogue

373. Twentieth Century Continental Philosophy Major philosophical movements and tendencies in continental Europe since 1900: phenomenology, hermeneutics, existentialism, structuralism, poststructuralism. Close study of writings by Husserl, Heidegger, Sartre, Merleau-Ponty, and Derrida. Issues and debates in current periodical literature. Prerequisite: Philosophy 243 and at least one other course in the department; Philosophy 244 strongly recommended.

374. Twentieth Century Analytic Philosophy A critical examination of key themes in twentieth century Anglo-American philosophy and their fates: the primacy of logic and science, the Cartesian model of the mind and experience, the distinction between the linguistic and the empirical, the gulf between facts and values. Issues and debates in current periodical literature. Prerequisite: Philosophy 243 and at least one other course in the department.

382. **Theories of Knowledge** Conceptions of knowledge and its limits, and of the nature and possibility of truth. *Prerequisite: two previous courses in philosophy or permission of the instructor. Offered every other year.*

383. **Theories of the Real** Conceptions of what is ultimately real, together with discussions of the nature and limitations of such conceptions. *Prerequisite: two previous courses in philosophy or permission of the instructor. Offered every other year.*

384. **Theories of Value** Examination of the nature and logic of values and evaluations. Sources, scope, and rationality of values. Connections between values and facts. *Prerequisite: two previous courses in philosophy or permission of the instructor. Offered every other year.*

385. **Theories of History** Speculative philosophies of history which have significantly influenced the shape of Western thought; history of the idea of history. Other topics include the problem of historical explanation, and the notions of historical cause and progress. *Prerequisite: two previous courses in philosophy or permission of the instructor. Offered every other year.*

391. **Seminar** Ordinarily limited to majors or others with a strong background in philosophy. Recent topics have included: Plato's Republic, Merleau-Ponty, Kant's First *Critique*, Postmodern Feminism, Recovery of the Body in Recent Thought. *Prerequisite: permission of the instructor*.

Senior Colloquium. Informal colloquium bringing the department faculty and senior majors together for discussions of contemporary issues in the field, usually based on selections from recent work.

Symposium. Discussions of papers or topics of mutual interest, led by faculty members, students, or visiting speakers. *Open to majors and to others by invitation. Non-Credit.*

Major:

Ten courses, including 121 or 131, 241, 243, either 373 or 374, and six other courses chosen with the advice of the department, at least two of which must be at the 300 level, and only one of which may be taken as independent study. Majors should complete the logic requirement (121 or 131) as soon as possible, and should take 241 and 243 early in the major. For any given term the chairman may designate courses in other programs which may be counted toward the major in philosophy; express permission of the adviser is required in each case.

Declared majors have the right but not the obligation to participate with vote in deciding and implementing departmental policy. Prior to the term in which they exercise this option, majors must have declared their intention to do so; during that term they must attend department meetings and assist in departmental business.

Minor:

Six courses chosen with the advice of the department.

Physical Education

he physical education program plays an integral part in the total education of the students at Dickinson. The program contributes to students' social, physical, and psychological development. The major emphasis of the program centers upon the development of skills and understandings of physical activities that can be pursued by students throughout their lives.

The department offers over 50 activities in a broad array so that each student may have the opportunity to select activities of interest to him or her. Most offerings are at the beginning level, although there are advanced offerings in many activities. An individual who has an interest in a specific activity area may pursue an individualized program designed to meet his/her specific needs. The self-paced option may be used for the following: walking, strength training, swimming, rope skipping, bicycling, jogging, Nautilus training, and self-initiated programs.

All students at Dickinson College must satisfactorily complete three semesters (six units) of physical education. Five units must be physical education activity units, and one must be a unit of department-offered theory. Transfer students with junior standing and with no previous physical education credit are required to take only two semesters of physical education (three activity units and one theory course unit).

A student may receive credit for no more than two physical education units for the same activity. A maximum of three units may be earned by participation in intercollegiate athletics or advanced military science. Intercollegiate credit is limited to two units for a single sport. Credit for one additional unit may be received for participation in another sport. Physical education activity units for military science may be earned for summer camp (two units) and for completion of both junior and senior levels of military science leadership lab (one unit).

Physical education courses are offered in halfsemester units. This means that a student is enrolled in an activity for approximately six weeks before a second unit begins. Students must register for physical



education courses just as they register for other courses. Students may register for courses offered in the second half of the semester during the first week in which the courses are offered.

During an activity course a student must demonstrate skills and knowledge of rules in order to receive a passing grade. Attendance and active participation are also used as grading criteria. Theory courses are graded according to written evaluations, class participation, assignments, and attendance. All physical education courses are graded pass/fail.

If there is a reason why a student cannot participate in the physical education activity program, the student must submit to the department chairperson a medical statement from a physician detailing the extent of the medical problem. Following receipt of this statement, the chairperson will meet with the student to determine a waiver of appropriate portions of this requirement.

Faculty:

Leslie J. Poolman, Chairman, Department of Physical Education and Director of Athletics. Ed.D., West Virginia University. In addition to administering the 22 intercollegiate sports and the extensive physical ed-

ucation program he teaches squash, badminton, and tennis. He is involved at the national committee and coaching association levels in soccer. His professional interests extend to the history and philosophy of sport and the development of soccer in the United States.

W. J. Gobrecht, Associate Professor of Physical Education, Head Lacrosse Coach. A.M., Duke University. Sports data concerning Dickinson College are a consuming passion of Mr. Gobrecht. Currently he is working on a history of baseball, tennis, soccer, and swimming at the College.

Willam J. Nickey, Physical Educator, Associate Golf Coach, M.Ed., West Chester State University. Certified Professional Ski Instructor. Teaching includes Alpine skiing, golf, racquetball, tennis, Truly Living Concepts, and volleyball.

Joseph E. McEvoy, Physical Educator, Aquatics Director, Swimming Coach, D.P.E., Springfield College. His administrative and teaching duties encompass the entire aquatics program. He coaches both the men's and women's swimming teams. His research interests are focused on "fitness swimming" as a lifetime form of exercise.

Judith M. Yorio, Physical Educator, Director of Truly Living Program. M.S., Southern Connecticut State College. Her present research are in behavioral fitness and exercise physiology.

Robert H. Shank, Physical Educator, Head Athletic Trainer. Ed.D., University of Virginia. His major professional interests involve the application of sports medicine and exercise physiology to the areas of prevention, emergency care, and rehabilitation of injuries associated with athletic activities. His other interests include the delivery of emergency medical services and the instruction of emergency first aid and cardio-pulmonary resuscitation.

Donald J. Nichter, Physical Educator, Women's Cross Country Coach, Director of Recreational Sports. M.S., Pennsylvania State University. In addition to administering the intramural and sport club programs, his professional interests include fitness programming and a scholarly study of the impact of exercise on physical and psychological health. His ma-

jor teaching areas include running, strength training, racquetball, slimnastics, and the theory course Truly Living Concepts.

Edward F. Sweeney, Physical Educator, Head Football Coach. M.Ed., University of Vermont. Special interests in strength training.

Eileen M. Sharp, Physical Educator, Head Coach of Field Hockey and Women's Lacrosse. M.S., University of New Hampshire. Involved at the national committee and coaches association levels in the development and promotion of field hockey and lacrosse. Teaching includes tennis, racquetball, Truly Living Concepts, badminton, squash, and weight training.

Joel M. Quattrone, Physical Educator, Assistant Athletic Director, Facilities Manager, Assistant Football Coach. M.S., Canisius College.

Donna L. Leitner, Physical Educator, Head Women's Basketball Coach, Assistant Softball Coach. B.A., Lehigh University. Major interests involve team unity theories and cross-disciplinary teaching.

Julie A. Ramsey, Physical Educator, Assistant Athletic Trainer. M.Ed., University of Virginia.

Darwin P. Breaux, Physical Educator, Assistant Football Coach. M.Ed., West Chester University.

David N. Frohman, Physical Educator, Head Men's Varsity Basketball Coach. M.Ed., Xavier University.

Physical Education Activities

- 1. Active Activities
- 2. Intro. to Aerobic Activities
- 3. Badminton
- 4. Advanced Badminton
- 5. Ballroom Dancing
- 6. Basketball
- 7. Ballet
- 8. Jazz Dance
- 9. Modern Dance
- 10. Fencing
- 11. Flag Football
- 12. Golf
- 13. Advanced Golf

- 14. Handball
- 15. Hydroaerobics
- 16. Karate & Self Defense
- 17. Racquetball
- 18. Advanced Racquetball
- 19. Scuba Diving
- 20. Alpine Skiing
- 21. Slimnastics
- 22. Snorkle Diving
- 23. Soccer
- 24. Softball
- 25. Squash
- 26. Strength Training (Coed)
- 27. Strength Training for Men
- 28. Strength Training for Women
- 29. Beg./Int. Swimming
- 30. Self-Paced Cycling
- 31. Self-Paced Jogging
- 32. Self-Paced Fitness Swimming
- 33. Self-Paced Nautilus
- 34. Self-Paced Rope Skipping
- 35. Self-Paced Strength Training
- 36. Self-Paced Triathlon
- 37. Self-Paced Walking
- 38. Tennis
- 39. Advanced Tennis
- 40. Tai Ji Quan
- 41. Volleyball
- 42. Yoga

Non-Credit

- *Advanced Life Saving
- *Advanced Life Saving Review
- *Water Safety Instruction

Physical Education Theory Courses

The theory requirement of the department is designed for three purposes: (1) to introduce the rationale for being a physically active person so that a student may make an informed choice regarding physical activity which will affect the quality of the student's life, (2) to provide an experiential opportunity which will permit the student a better understanding of the student's present lifestyle, and (3) to provide an opportunity to develop skills related to prevention and care of activity-related injuries and life-threatening occurrences.

Truly Living Concepts This course's content includes a study of the physiological and psychological benefits derived from physical activity. Programs for the development of muscular strength, flexibility, body composition, and cardiorespiratory endurance will be studied. Attention will also be given to lifestyle enhancement and contemporary health issues.

Prevention and Care This course's content will include prevention, emergency care, treatment, and rehabilitation of athletic injuries. Laboratory experience in taping, wrapping, and treatment is required. The scientific bases of conditioning and training as well as the psychogenic factors involved in athletics and sports medicine will be studied.

Cardiopulmonary Resuscitation/Standard First Aid Instruction is based on the guidelines established by the American National Red Cross in their Modular CPR Course. Class activities include films, assigned readings, demonstrations, and skill practice sessions

coordinated with the workbook lessons.

Nutrition The main emphasis of this course is on weight control, diets, nutritional needs of various age groups, and the monitoring of nutrition associated with students' current life-styles.

The Truly Living Program

The Truly Living program was established in response to a growing interest in preventive and maintenance health programs, and concern for the development of healthy lifestyles. Truly Living is a "wellness" program designed to benefit Dickinson students, faculty, staff, admininstrators, alumni, and their spouses for many years to come. The Office of Educational Services and the Department of Physical Education, through the implementation of the Truly Living program, provide seminars on smoking cessation and alcohol awareness. In combination with other services and programs, the Truly Living seminars provide the information and inspiration needed to bring about an increased awareness of personal health and life-style factors. This is an education-for-health program.

Physics and Astronomy

he program in physics and astronomy serves students who desire a rigorous education in physics, those who will use physics in allied fields such as medicine, and those who are interested in the historical and cultural aspects of physics and astronomy. It aims to give the student an insight into the fundamental laws of nature and facility in the mathematical language in which they are expressed. Students may major in physics as a preparation for further professional study in physics, astrophysics, or engineering, or for careers in which a background in physical science is valuable.

The introductory laboratory courses are taught in small sections. The introductory physics courses are taught in a workshop format where less than 25 students attend three two-hour workshops each week and work directly with physics apparatus and computers to make observations and analyze data. The Physics 131, 132 course sequence is intended for those students who wish to continue further in the natural sciences and for freshmen who want to satisfy the laboratory distribution requirement. The Physics 111, 112 course is intended primarily for pre-health students and upperclass students wanting to satisfy the laboratory distribution requirement; it contains additional topics needed by pre-health students and not covered in the Physics 131, 132 course. The introductory astronomy course is divided into class sections of about 30 students. In addition to regular lectures, each astronomy section has one laboratory per week plus additional observational work. The astronomy course is intended primarily for non-science students who want to satisfy the laboratory science distribution requirement.

The physics major may take advantage of the combination of a strong and diverse academic program, modern laboratory equipment, low student/faculty ratio and close personal contact with faculty involved in research. In addition to normal course work, the department encourages physics majors to pursue inde-

pendent study or research with the guidance of a faculty adviser. Students have recently completed projects in radiation physics, plasma dynamics, infrared astronomy, chaos, and the physics of dance. The Tome physics building houses two workshop physics laboratories, a large lecture room, an astronomy laboratory, a well-equipped planetarium, one of the few undergraduate plasma physics laboratories in the country, a radiation physics laboratory, an optics laboratory, a physics library, and a student computer room. The department has over 25 microcomputers in the building for student use.

Some recent physics graduates have research positions in physics and engineering. Others are working in high school and college teaching, transportation engineering, planetarium work, computer engineering, space physics, and environmental control. About half of our recent graduates are completing graduate work in physics or allied fields such as astronomy, meteorology, bioengineering, electrical engineering, health physics, management, and law.

Faculty:

Kenneth L. Laws, Professor of Physics. Ph.D., Bryn Mawr College. Although his early research experience was in solid state physics, he is now active in the field of biomechanics of dance. This work has culminated in a book, The Physics of Dance, published in 1984. Recent teaching interests include meteorology and electronics.

Priscilla W. Laws, Professor of Physics. Ph.D., Bryn Mawr College. Since receiving her doctorate in nuclear physics her interests have expanded to include radiation dosimetry, health effects of diagnostic xrays, environmental science, and laboratory applications of microcomputers. She is the author of two books on medical x-rays, and has developed software, hardware, and manuals for microcomputer-based laboratory measurements.

Neil S. Wolf, Professor of Physics. Ph.D., Stevens Institute of Technology. The plasma physics of fusion reactors and space is his primary research interest. Students at Dickinson have helped to build several large experiments which have been used to study waves and instabilities in highly ionized gases. Besides teaching the General Physics course, his courses include plasma physics research, electricity and magnetism, mechanics, statistical physics, the social and scientific background of nuclear power and the nuclear arms race. (Director of the Center for European Studies, 1988-90)

John W. Luetzelschwab, Professor of Physics. Chairman. Ph.D., Washington University. His background is nuclear physics although now his basic research interest is in environmental radioactivity and health physics. His other interests are concerned with energy production, use, and conservation, particularly energy conservation in the home.

T. Scott Smith, Associate Professor of Physics, Director Bonisteel Planetarium. Ph.D., University of Maryland. Although his major areas of research and teaching have been theoretical astronomy and astrophysics, he also has considerable interest in the history of science and science/society interactions past (megaliths/archeoastronomy), present (environmental crisis), and future (science fiction) both in the Western and non-Western traditions. (On leave 1989-90)

Robert J. Boyle, Assistant Professor of Physics and Astronomy. Ph.D., Yale University. An obeservational astronomer by training, he also has an interest in laboratory astrophysics. His major research interests involve infrared astronomy, studies of old stellar systems, and laboratory spectroscopy of molecules of astrophysical interest. He is a frequent observer at Kitt Peak National Observatory and Cerro Tololo Inter-American Observatory and collaborates with astronomers at other national facilities. His teaching activities include introductory physics, introductory astronomy, thermal physics, and a variety of other topics in physics and astrophysics.

Guy Vandegrift, Assistant Professor of Physics. Ph.D., University of California, Berkeley. His research interests are plasma physics and fluid instabilities. He visited and worked in the Soviet Union, where he did research at the Institute of Nuclear Physics, Novosibirsk.

Kausar Yasmin, Assistant Professor of Physics. Ph.D., New Mexico State University. She has done research in theoretical molecular spectroscopy: computer modeling of microwave absorption by water vapor. Her research interests also include the areas of atmospheric physics and computational physics.

Courses in Astronomy:

105. Life in the Universe A comprehensive study of the astronomical possibilities of extraterrestrial life including a brief survey of the universe, conditions necessary for life, and astronomical observations (including UFOs) which support or deny the premise that life in the universe is a common phenomenon. Offered in summer school only.

107, 108. Astronomy Similar to 109, 110 described below, but without laboratory work. 107 and 108 will not count toward major requirements in physics and will not satisfy the one-year laboratory science distribution requirement. Either course will, however, count as the third required course in Distribution III. Please read Note.

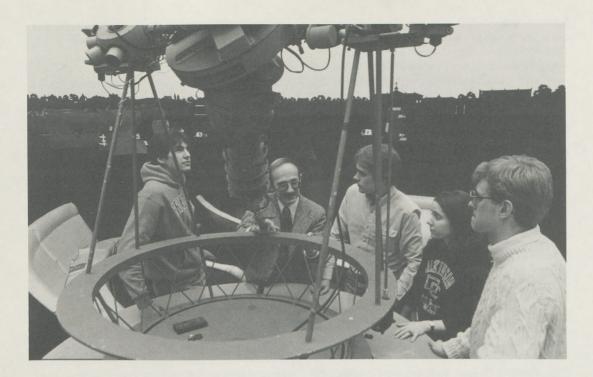
109, 110. Astronomy Introduction to the modern concepts of the physical nature of the astronomical universe. First semester: historical development of astronomical ideas and origin and evolution of the solar system. Second semester: cosmology and the structure and evolution of the stars and galaxies. A terminal laboratory course for non-science students. Three hours classroom, one two-hour laboratory a week. This course will not count toward major requirements in physics, but will satisfy the one-year science distribution requirement. Please read Note.

206. Topics in Astronomy Physical and mathematical aspects of astronomy. Topics will be selected from the following: Comparative Planetology, Stellar Evolution, Cosmology or Observational Astronomy (using the 14-inch Celestron telescope or the solar heliostat). Prerequisite: 112 or 132; Mathematics 162.

Courses in Physics:

102. Meteorology The physical basis of modern meteorology: characteristics of atmospheric motions, clouds, and weather systems; methods of weather observation and forecasting; meteorological aspects of air pollution. Satisfies the one-course distribution requirement in Division III, but may not count toward a physics major. (See also Physics 202.)

*111, 112. Elementary Physics Introductory, noncalculus physics, principally for life science and premed students. Topics include mechanics, thermodynamics, acoustics, optics, electricity, magnetism, and



modern physics. Three two-hour workshop sessions a week. Please read Note.

*131, 132. General Physics An introduction to classical mechanics, heat, and waves in the first semester; emphasizes particle and rotational motion, the conservation laws of energy and momentum, and the laws of thermodynamics. Second semester: optics, electricity, circuit theory, magnetism, and the properties of matter. Introduces and uses elementary calculus in 132. Recommended for physical science and mathematics majors and pre-engineering; a more analytical study than Physics 111, 112. Three two-hour workshop sessions a week. Prerequisite: concurrent registration in Mathematics 151 or 161, 162. Please read Note.

202. Meteorology The physical basis of modern meteorology: characteristics of atmospheric motions, clouds, and weather systems; methods of weather observation and forecasting; meteorological aspects of air pollution. Some of the basic concepts and techniques of introductory physics will be used to solve problems in meteorology. This course may count toward a physics major. Prerequisite: 111 or 131. (See also 102).

231. Modern Physics Special relativity, atomic, nuclear, and solid state physics. Topics include atomic structure and its relationship to the quantum nature of light and matter, nuclear structure and interactions, and elementary particles. Prerequisite: 112 or 132.

232. The Physics of Waves and Optics A study of the motion of waves and vibrating systems. Resonance phenomena, coupled oscillation, superposition, and interference. Wave theory will be used to describe various phenomena especially in optics and modern physics. Prerequisite: 112 or 132, Mathematics 162.

255. Modern Electronics Circuit design and analysis; electronic devices. A study of diodes, transistors, integrated circuits and other solid state components in dc, ac, amplifier, and digital circuits. The laboratory utilizes modern electronic equipment. Some machine shop experience may be included. Class and laboratory work totals seven hours per week. Prerequisite: 112 or 132.

256. Microcomputer Control A practical introduction to basic digital electronic design and analog to digital conversion techniques as well as microcomputer architecture and assembler programming. Topics are integrated in a final project involving the development of software and electronic circuits for computer-based control functions. Class and laboratory work totals six hours per week. Prerequisite: 255. This course is also cross-listed as Computer Science 256.

311. Analytical Mechanics Statics and dynamics: motion of a particle in one, two and three dimensions; systems of particles, rigid body motion, moving coordinate systems, and Lagrange's equations. Prerequisite: 232, Mathematics 262, or permission of the instructor.

*331, 332. Electricity and Magnetism Principles and applications of electricity and magnetism using vector calculus. First semester: basic properties of the electromagnetic field, interaction of the field with charges and currents; dielectric and magnetic media. Second semester: solutions of Maxwell's equations in matter and free space; reflection and refraction of waves; guided waves; topics in plasma physics and special relativity. Laboratory work as appropriate in 332. Prerequisite: 232, Mathematics 262.

335. Modern Physics Laboratory Laboratory experiments in atomic and nuclear physics, emphasizing alpha, beta, and gamma particle detection techniques, gamma spectrometry, and half-life measurements; resonance and wave phenomena in acoustics, modern optics, and holography, using lasers, microwaves, spectroscopy, and photography. Six hours laboratory a week. Prerequisite: 231 and 232.

*341, 342. Mathematical Physics Analytical and numerical techniques for the mathematical analysis of physical phenomena. Topics include advanced vector analysis and matrix methods, techniques for solving ordinary and partial differential equations used in physics, the solution of boundary value problems, the properties and use of functions of a complex variable, Green's functions, Legendre Polynomials and Bessel Functions. Prerequisite: 132, Mathematics 262.

361. Topics in Modern Physics Topics selected from atomic, nuclear, plasma, or solid state physics; or modern optics and acoustics. Prerequisite: 231, Mathematics 262.

362. Thermodynamics and Statistical Mechanics Classical and quantum statistical mechanics and

thermodynamics with applications to the solid state and other physical systems. Prerequisite: 232, Mathematics 262, or permission of the instructor.

*371, 372. Health Physics Basics of health physics. Topics include nuclear binding energy, nuclear models, radioactive decay, interaction of radiation with matter, and radiation dose measurement; biological effects of radiation; instrumentation; internal and external dose calculations; licensing; waste disposal; and radioactive monitoring. Prerequisite: 231.

375, 376. Nuclear and Health Physics Laboratory Basics of nuclear and health physics instrumentation. Topics include pulse counting; use of multichannel analyzer; alpha, beta, and gamma detection; TLD dose measurements, counting statistics; neutron activation; environmental radiation detection; decontamination; and shielding. Prerequisite: permission of the instructor. One-half course each.

392. Physics Seminar Student reports and discussions on several topics in contemporary physics. Emphasis is on the development of bibliographic skill, seminar presentation and report-writing techniques, as well as increasing the breadth and depth of the student's knowledge of recent research. Prerequisite: 232 and permission of the instructor. One-half course.

431. Quantum Mechanics Basic postulates of quantum mechanics; the Schrodinger and Heisenberg formulations. The wave equation; potential wells and barriers; the harmonic oscillator; the hydrogen atom; perturbation theory; and other topics. Prerequisite: 231, 311, 341.

432. Topics in Theoretical Physics Topics to be selected from the following areas: advanced dynamics, special and general relativity, applications of quantum mechanics to atomic, nuclear, and condensed matter physics. Prerequisite: 311, 341, or permission of the instructor.

461. Problems in Contemporary Physics Integration of theoretical principles with research in the conduct of team research in contemporary physics. Emphasis on research techniques including oral and written communication. Field trips to graduate school, industrial and government research laboratories to explore career possibilities.

Health Physics

Health physics is the field of study concerned with radiological safety in nuclear power plants, hospital xray and radiation facilities, and any institution that uses radioactive material for research.

The Dickinson Physics and Astronomy Department offers the following courses and laboratories in health physics: 371, 372, 375, 376 usually. These courses are self-directed study programs, not lecture courses. The student completes weekly reading and problem assignments and meets once a week with the advising faculty member to discuss the week's assignments and take the assigned examinations.

Three other courses (one-half course credit each) are available in environmental health physics, medical health physics, and nuclear power plant health physics. A student can also do independent research and possibly have an internship in health physics at a nearby nuclear facility.

Note: Because of similarity in course content, students will not receive graduation credit for both of the following pairs of courses: 102 and 202, or 107 and 109, or 108 and 110, or 111 and 131, or 112 and 132.

Major:

Those planning to major in physics, in consultation with the department, will devise a program tailored to their preparation, interests, and goals. Each student is expected to acquire a basic knowledge of classical and modern physics, and mathematical physics: Courses normally required of the major include: 231, 232, 311, 331, 341, 461, and an additional laboratory course. Students pursuing special programs of study within the department may replace some of these courses, with approval of the chairman, but a minimum of nine physics courses is required. Possible programs of study include: astrophysics, biophysics, chemical physics, geophysics, health physics, mathematical physics, meteorology, pre-engineering, secondary school teaching.

Minor:

Six courses including 111, 112 (or 131, 132), 231, and three additional courses in the department.

Policy and Management Studies

olicy and Management Studies is an interdisciplinary approach to the study of policy making and the implementation of policy decisions in the public and private sectors. The program is designed to develop an understanding of the economic, political and cultural constraints that shape policy decisions as well as the ethical values which policies promote. Broadly, the concerns of the program are reflected in such questions as "What is the public interest?," "How well do private and public decisions made in alternative economic, political and cultural systems reflect the public interest?," and "How do economic, political and cultural institutions affect the implementation of public and private decisions?"

Students will study economic, political and cultural issues and institutions examining them in their overlap of four arenas: contemporary policy questions cross the permeable boundaries between these arenas, possible responses will be explored through interdisciplinary perspectives and techniques, ranging from anthropology through religion. In doing so, students and faculty will examine the interactions of socioeconomic and political forces. Also examined are the structural and cultural contexts that condition making, implementing and criticizing policy decisions.

Courses in the program will challenge students to consider the full implications of actual or proposed policy decisions and in this way help them to understand the various sorts and levels of commitment that shape our society. In learning how to analyze problems, students will become sensitive to the limits of rationality, to constraints in the cultural and physical environments, and to the complex relationships that connect those environments.

Steering Committee:

Harry F. Booth, Thomas Bowman Professor of Religion

Cyril W. Dwiggins, Associate Professor of Philosophy Candie Wilderman, Associate Professor of Environmental Science

Eugene W. Hickok, Jr., Assistant Professor of Political Science

Major:

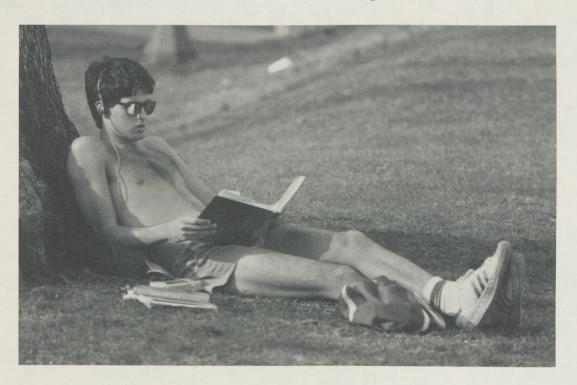
13 course credits: two prerequisite courses and 11 course credits in the core of the major, including a one course credit internship (or one-half course credit internship plus a related one-half course credit independent study).

Only two of the courses in the major are taught by faculty directly connected with the Policy and Management Studies program. They are a two credit foundations course and a one credit senior seminar. The rest of the courses taken for the major will come from the course offerings in the various departments at the college, selected by the student in consultation with the student's adviser. The normal way to proceed through this major is to complete the two prerequisite courses, take the foundations course, fill in the major with appropriate electives and finally finish with the senior seminar.

Acceptance as a major requires satisfactory completion of the prerequisite courses and foundations course by the spring semester of the sophomore year and approval by the Steering Committee. Normally, no more than four courses—the two prerequisite courses and two other courses—can be taken for credit toward this major prior to completing the foundations course.

A maximum class size for the foundation course is established in order to provide students with adequate opportunity to interact with the teaching faculty and with other students, an interaction which is vital in actual policy making processes. As a result, students may not always be able to gain access to this course and thus the major. During any given registration period enrollment preference is normally given to sophomores who have completed both prerequisite courses. Prerequisite: see listing below.

Students working on a double major must work closely with their Policy and Management adviser in planning their PMS major to insure that it constitutes a major substantially different in content from their second major. Normally, more than a three course overlap with the second major will require special consultation with the Steering Committee.



Prerequisites for PMS 200 (two courses) - Political Science 120 (American Government) and **Economics 111 (Introductory Microeconomics)** or Economics 100 (Contemporary Economics).

200. Foundation Course This course is required for entry into the Policy and Management Studies major. It is a two-credit, team-taught course (participants are from economics, political science, philosophy and occasionally from environmental science) offered every spring semester. This course focuses on the economic, political and cultural constraints on the process of policy making and implementation, as well as the ethical values that policies promote. The cornerstone of this course is a project that focuses on the formulation of public policy responses to some significant social problem. Problems tackled in the past year have included immigration, acid rain and acquired immune deficiency syndrome.

401. Senior Seminar A seminar in selected topics. Required of senior majors.

Substantive Concentration: (at least three courses in one of the following areas agreed upon by the Steering Committee and the student candidate).

- 1. Issues in the Public Sector: e.g., health, education, welfare, income security, transportation, civil rights, minorities, criminal justice, mass media. Examples of courses that students might take in this area include: Economics 344 (Public Finance), Economics 214 (A Contemporary Economic Issue), Political Science 131 (Public Policy Analysis) and Political Science 141 (Policy Making in State and Local Governments).
- 2. Issues in the Private Sector: e.g., resource allocation in market economies, industry organization and industrial performance, labor problems. Examples of courses that students might take in this area include: Economics 350 (Industrial Organization and Public Policy), Economics 353 (Economics of Labor) and Economics 347 (Money and Banking).
- 3. Resource Management: e.g., energy, environment, population, oceans, science and technology. Examples of courses that students might take in this area include: Environmental Studies 131, 132 (Environmental Science), Economics 222 (Environmental Economics) and Geology 131, 132 (Physical and Historical Geology).

4. International Affairs: e.g., trade, finance, development, foreign and defense policy, comparative public policy. Examples of courses that students might take in this area include: Political Science 170 (International Relations), History 382 (Diplomatic History of the US) and Economics 348 (International Economics).

Structural Context Courses (at least one): Courses offered in various departments which emphasize the organizational and structural processes through which decisions are made and which complement the student's concentration. Examples include: Economics 112 (Introductory Macroeconomics), Political Science 220, 221 (Constitutional Law I and II) and Political Science 150 (Comparative Politics).

Cultural Context Courses (at least two): Courses offered in various departments which emphasize the role of culture and ethics in the decision making process and which complement the student's concentration. Examples include: American Studies 201 (Introduction to American Studies), Environmental Studies 111 (Environment, Culture and Values), Philosophy 112 (Ethics), Religion 218 (War and Western Values).

Methods Courses (at least one): Courses offered in various departments which emphasize methods useful for policy analysis. Examples include: Math 121 (Elementary Statistics), Political Science 109 (Polimetrics and Research), and Economics 375 (Econometrics).

Internship (one course credit): An internship experience which will be related to the student's substantive concentration. All internships must be approved by the Steering Committee. Students are normally expected to work with a member of the Steering Committee in developing internships but students may work with any faculty member at the college as their internship adviser. The internship experience may also be satisfied by a one-half credit internship combined with a related one-half credit independent study.

Minor:

Eight credits - Prerequisite (2); Foundations (2); Substantive Concentration (1); Cultural Context (1); Structural Context (1); Methods (1). All minors must be approved by the Steering Committee no later than the beginning of the second semester of the junior year and students must enroll in the foundations course no later than their junior year.

Honors:

The Policy and Management Studies Program offers students the opportunity to graduate with honors in their major. To earn departmental honors a student must undertake two semesters of independent research beginning in the seventh semester of study and culminating with a presentation and defense before the PMS Steering Committee at the conclusion of the eighth semester of study. The grade on the independent research will be determined by the student's research adviser, while the decision to grant honors will be decided by the Steering Committee based on the presentation and oral defense. The two course credits earned for the independent research may be used to count toward the 11 credit core.

To participate in the honors program a student must submit a research proposal to the Policy and Management Steering Committee no later than one week after the start of the student's seventh semester. Part of this proposal must be an explanation of how the independent research fits into the student's PMS major. Upon approval of the proposal the student will be allowed to register for the independent research.

Political Science

Jolitical science analyzes political systems, actors, and processes on the local, national, and world levels. In doing so the department seeks to expose students to a variety of methods—theoretical, empirical, historical, normative-in the subfields of American politics, political theory, comparative politics, and international relations and to faculty who represent a broad spectrum of philosophical perspectives. Although political science is one of the social sciences, our faculty have skills and interests that range from humanistic concern for values to mathematical tools for quantitative research. Some of these interests are reflected in their activities outside the department in such programs as international studies, Latin American studies, comparative civilizations, the Bologna Program, the Washington Semester, and policy and management studies.

Departmental goals for faculty and students include the mastery of facts, the examination of values, the sharpening of analytical skills, and the formulation of considered views. Whether they go on to become lawyers, business executives, local or national civil servants, journalists, or dentists, our graduates are likely to be more responsible students and practitioners of the science and art of politics.

Faculty:

Bruce R. Andrews, Professor of Political Science. Ph.D., Syracuse University. He teaches American national government, with special emphasis on elections and voting behavior, political parties, the role of public opinion, and mass media influences. His current research interests include comparative aggregate electoral data patterns characterizing presidential elections from 1968 to 1988 and mass media effects on electoral politics.

K. Robert Nilsson, Robert Blaine Weaver Professor of Political Science. Ph.D., Columbia University. Comparative politics, especially Western Europe, and international law and relations are his main fields of specialization. Italian politics has been a continuing

area of scholarship with neo-corporatism and the Italian Socialist Party recent research interests. He has been an Adjunct Senior Research Scholar at the Institute on Western Europe of Columbia University and is the chairperson for the advanced area seminar on Italy at the Foreign Service Institute of the U.S. Department of State.

George Friedman, Professor of Political Science. Ph.D., Cornell University. His teaching includes political philosophy with a special emphasis on modern political thought. In addition to teaching political philosophy, he also teaches courses in military history and military studies. Recent research has included a study of Marxism and Judaism, and the design of computerized wargaming systems.

J. Mark Ruhl, Professor of Political Science. Ph.D., Syracuse University. He specializes in comparative politics and modernization theory. His research centers on the political consequences of social and economic change in Latin America. His specific interests include agrarian politics, civil-military relations, and economic policy.

Douglas T. Stuart, Associate Professor of Political Science. Ph.D., University of Southern California. His teaching and research interests include international relations theory, national security affairs, Asian and West European security. (On leave 1989-90)

David Strand, Associate Professor of Political Science. Chairman. Ph.D., Columbia University. His field is 20th century Chinese politics and history. Research interests include local politics, political participation, and state-building.

H. L. Pohlman, Associate Professor of Political Science. Ph.D., Columbia University. His specialty is Constitutional law and legal-political thought. Current research concerns Justice O.W. Holmes's constitutional thought. (On leave Fall 1989)

Eugene W. Hickok, Jr., Assistant Professor of Political Science. Ph.D., University of Virginia. His teaching and research emphasizes American government and politics. His courses focus upon the relationship between theory and practice in the institutions of government and the influence of Constitutional principles in American politics. Recent research has focused

upon the role of the Congress and the Presidency in shaping the Supreme Court and federalism as a Constitutional principle. He maintains an ongoing interest in policy and management studies.

Russell Bova, Assistant Professor of Political Science. Ph.D., Indiana University. His fields are comparative politics and international relations with a special interest in Soviet politics. Current research activities focus on the politics and economics of reform in the contemporary U.S.S.R.

James M. Hoefler, Assistant Professor of Political Science. Ph.D., SUNY at Buffalo. He specializes in American politics with particular emphasis in public policy analysis, state and local government, and public administration.

Courses:

The following courses are grouped according to the four major subfields of political science: political theory, American politics, comparative politics, and international relations. Introductory and intermediate courses are numbered in the 100s; advanced courses are numbered in the 200s. Within the 100 and 200 ranges, numbering sequences reflect subdivisions of the field, not level of difficulty.

Political Theory

101. **Introduction to Political Philosophy** An introduction to the history of Western thought on the problems of the possibility of knowing political justice and creating a just polity. Major texts from the tradition will be discussed.

109. **Polimetrics and Research** Philosophy and research methodology of behavioral political science. The course briefly examines the assumptions and procedures of natural science and discusses their relevance to the contemporary study of political phenomena. During the balance of the course, students learn to use quantitative techniques of political analysis such as survey research (polling) and aggregate data analysis by participating in original group research projects. No prior knowledge of statistics is necessary. Especially recommended for prospective graduate students in the social sciences.

- 202. Recent Political Thought An introduction to the political thought of the 20th century focusing on the works of Weber, Freud, Dewey, Strauss, and others. *Prerequisite: 101 or permission of the instructor.*
- 205. American Political Thought An historical exposition of the ideals of American political culture. Concepts that will be addressed include natural law, liberty, constitutionalism, democracy, equality, and privacy. *Prerequisite: 120 or permission of the instructor.*
- 207. Marxist Political Thought An examination of the political philosophy of Karl Marx, Lenin, Trotsky, and others within the tradition of Marxist scholarship and politics. *Prerequisite: 101 or permission of the instructor.*

American Politics

- 120. American Government A basic introductory course in American federal government which emphasizes its structure and operation as well as modern methods of analysis. Special attention is given to the executive, legislative, and judicial processes.
- 121. Law, Politics, and Society An introduction to the study of law and the legal process. Topics will include the idea of natural law, the political implications of the rule of law, the political implication of the rule of law versus the rule of men, and the influence of law in shaping society, including administrative and business law.
- 131. **Public Policy Analysis** The purpose of this course is to acquaint students with the concepts embraced in policy analysis and the methods employed by those individuals who study and analyze public policy. It is designed not only to provide a working knowledge of technique but also a knowledge of the intellectual support for that technique. Some emphasis will be placed upon the economic approach to public policy and the implications of that approach. *Prerequisite: one course in political science or economics*.
- 141. Policy Making in State and Local Governments An analysis of state and local governments with particular emphasis on the exertion and distribution of political power and on the influence of bureaucracies in policy making. Attention is given to political pressures and bureaucratic constraints experienced by policy makers in such areas as criminal

- justice, corporate regulation, poverty relief, and urban growth and planning.
- 220. **Constitutional Law I** An analysis of constitutional adjudication in the areas of separation of powers, federalism, and economic rights. Special emphasis is placed upon the idea of a written constitution and the role that judges play in our constitutional system. Topics include Watergate, war powers, and legislative veto. *Prerequisite: 120 or permission of the instructor.*
- 221. **Constitutional Law II** An exploration of American constitutional rights. Both historical developments and contemporary issues are addressed. Topics include racial and sexual equality, affirmative action, seditious speech, and school prayer. *Prerequisite: 120 or permission of the instructor.*
- 231. **Public Administration** An analysis of the organization and functioning of the national bureaucracy in a democratic society. Special attention is given to presidential management, theories of organization, independent regulatory agencies and bureaucratic pathology, financial and personnel administration, and administrative responsibility. *Prerequisite: 120 or permission of the instructor.*
- 241. **The Black Experience** A survey course analyzing the experience of black people in the American political system. Contemporary political issues confronting the black community will be discussed in the light of its history and the nature of the American political system. Organized around the central questions: Is black equality possible within the American political system as it is currently organized?
- 242. **Political Behavior** Cultural, social, and psychological factors which contribute to forms and directions of political behavior. Special attention is given to American voting behavior, ethnic political behavior, and personality influences on politics. Field surveys are undertaken to illustrate contemporary trends. *Prerequisite: 120 or permission of the instructor.*
- 244. **Public Opinion and Propaganda** The nature, formation, and manipulation of public opinion in a democratic society. Included are an analysis of mass communication (press, television, and film) from the McLuhan and behavioral perspectives, propaganda techniques and effects in both democratic and authori-



tarian societies, and problems of public opinion polling. Prerequisite: 120 or permission of the instructor.

245. Political Parties and Interest Groups A study of the functions, structures, and operations of American political parties and interest groups. Special attention is given to the techniques of running a campaign for office, to the role of the media in superceding American parties, and to the interactions of government with the two largest "interest groups": business and labor. *Prerequisite: 120 or permission of the instructor.*

246. **The Legislative Process** An analysis of the legislative branch of government, especially Congress. Emphasis is placed upon the legislature as a social system, the decision-making process, the interrelationships with the political parties and interest groups, the executive and the judiciary. *Prerequisite: 120 or permission of the instructor.*

247. **The American Presidency** An in-depth analysis of the nature and significance of "the Man" and "the Office," including constitutional development, presidential roles and customs, the recruitment process, the executive branch, and the politics of the presidency. *Prerequisite: 120 or permission of the instructor.*

248. **The Judiciary** A study of the structure and the processes of the American judiciary. The adversarial system, plea bargaining, sentencing, and legal reasoning are all examined. Special attention is given to the federal judiciary, especially the Supreme Court. *Prerequisite: 120 or permission of the instructor.*

Comparative Politics

140. **The City** An introductory course which surveys urban politics from a broadly comparative vantage point. Topics include the socioeconomic and cultural bases of city politics, power struggles and policy making within urban political arenas, and the relationship between urbanization and political development.

Dickinson College Political Science 137

- 150. Comparative Politics An introduction to comparative political analysis with applications to political systems, processes, and issues in countries of the Third World and in advanced industrial states alike. The purpose of the course is to learn to observe systematically, to analyze political phenomena, and to distinguish and evaluate the assumptions underlying alternative approaches to the study of politics.
- 250. Comparative West European Systems European parliamentary institutions analyzed as alternative liberal-democratic systems. Particular attention is paid to the British cabinet form, the French presidential form, the Italian coalition form, and the German federal form.
- 251. Latin American Government and Politics An introduction to the politics of contemporary Latin America. Emphasis is placed upon the varied political institutional responses to socio-economic change in the Americas. Major countries to be analyzed include Argentina, Brazil, Mexico, and Cuba. Prerequisite: one course in Political Science or Latin American studies.
- 252. African Government and Politics An introduction to the politics of contemporary, sub-Saharan Africa. After analyzing the historical and socioeconomic context of African politics, the course examines a number of contrasting political systems in depth. The final section of the course discusses the current problems of South Africa from an international perspective. *Prerequisite: one course in Political Science.*
- 253. **Soviet and East European Politics** An analysis of the institutions, processes, and issues of Soviet and East European politics as shaped by history, ideology, and contemporary realities.
- 254. Comparative Asian Governments and Politics Comparison of selected Asian political systems with special attention given to the emergence of new nations from old cultures, contrasting patterns of political and economic development, and the current state of political affairs in each country studied. Prerequisite: one course in Political Science or East Asian Studies.
- 255. **Chinese Politics** An introduction to the contours of contemporary politics as shaped by traditional

and revolutionary legacies, the institutions of state socialism, China's underdevelopment and struggles over power and policy.

International Relations

- 170. **International Relations** Analysis of the capabilities, limitations, and patterns of interaction of state and non-state actors in their pursuit of multiple objectives in the international system.
- 270. International and Comparative Law An introduction to the limits on international law; its sources, territorial jurisdiction, the law of treaties, and conflict-resolution; and to the major "families of law" applied within countries of the Common Law, German-Roman, and Socialist traditions. Particular attention is given to the relationship between legal systems and social values. Prerequisite: 250 or 170 are recommended.
- 273. International Political Economy An analysis of the interplay of politics and economics which will focus on the ways in which political realities both shape and are shaped by international economic relations. Issues related to the North-South, East-West, and intra-Western dimensions of the international political economy will be addressed. This course will include a brief survey of the fundamentals of trade and money for those without prior course work in economics. *Prerequisite: 170 or permission of the instructor.*
- 275, 276. **Studies in Modern European Politics** To be offered only in Bologna.
- 280. American Foreign Policy Since 1945 A survey of U.S. foreign policy since World War II. American approaches to such issues as containment, detente, arms control, deterrence, international law, and third world economic development will be discussed. Students will also address issues of U.S. foreign policy formulation, including the roles of the public, congress, and the president in the foreign policy process. *Prerequisite: 170 or permission of the instructor.*
- 281. American National Security Policy Analysis of formulation and implementation of American national security policy within the context of American society and the international system. National security will not be considered simply in a military/strategic sense but as connoting the preservation of the core

values of a society. Prerequisite: 170 or 120 or permission of the instructor.

283. **Soviet Foreign Policy** An analysis of the patterns, instruments, and sources of Soviet conduct in the world arena, including an examination of the foreign-policy-making process. Topics covered include military and defense policy, East-West relations, international communism, and policies in the Third World. *Prerequisite: 170 or 253 or permission of the instructor.*

190, 290. **Selected Topics in Political Science** Topics not normally studied in depth in the regular offerings are analyzed in these special topics courses.

390. **Seminar** A seminar in selected topics in political science. *Open to sophomore, junior, and senior majors and to others with permission of the instructor.*

Major:

Nine courses, including Political Theory (101), American Government (120), International Relations (170), any course in Comparative Politics (140, 150, 250, 251, 252, 253, 254, 255, 270, and, when appropriate, 275, 276, 190, 290) and a 390 seminar. No courses may be taken Pass/Fail.

Normally five courses must be taken in residence.

Honors:

The department offers two options for pursuing honors. Prerequisites are a GPA of 3.0 in all courses and 3.25 in political science courses. Two faculty members will serve as first and second readers or advisers. The options are:

- (1) Two semesters of independent research, beginning in the sixth or seventh semester, culminating in the presentation and defense of a paper.
- (2) Written and oral examinations at the conclusion of a tutorial major. The tutorial major program is intended for the student who is interested in a comprehensive and intensive examination of the field. The student works primarily under the guidance of two members of the department (first and second adviser) by mutual agreement. Together they devise a program of study, to be approved by the

department, which indicates the fields of concentration, political science courses to be taken for credit or audit, papers and essays to be written, etc. The only specific course requirement is a 390 seminar. Program changes may be made with the approval of advisers and the department up to and including the seventh semester. A student portfolio will contain samples of essays and other work as well as evaluations by the tutors and other instructors as appropriate.

Normally the program begins no sooner than the student's third semester.

In the spring semester of the senior year the student is required to sit for a comprehensive written and oral examination to be administered by the department. The examination will deal with the fields of political science agreed upon by the student, tutors, and the department. Normally one-quarter of the final semester should be dedicated to preparation for the comprehensive examination. One re-examination in one or more fields may be permitted within the calendar year.

Minor:

Six courses. Coursework submitted for the minor must be from at least four of the subfields: political theory, American politics, comparative politics, and international relations.

Off-Campus Study:

Majors may apply to spend one or two semesters off campus in a variety of programs: e.g., the Washington Semester at American University or Dickinson's Center for European Studies in Bologna, Italy.

Portuguese

See Spanish

Psychology

he separate discipline of psychology emerged in the late 19th century. Its emergence was a culmination of developments in philosophical speculation about the nature of people and their universe, advances in the scientific study of sensation and perception, and attempts to measure human behavior objectively. Today psychology is defined as the scientific study of behavior and mental processes. The topics that interest psychologists include such diverse subjects as learning, intelligence, memory, motivation, perception, social interactions, child development, and the causes and treatment of abnormal behavior. The unifying thread in this field is that all psychologists study behavior and mental processes from an empirical, objective perspective. Students should keep in mind that psychology is an empirical science. Psychology regularly offers more laboratory sections than biology, geology, or physics. Only students interested in the challenges and hard work demanded by a research environment should consider a major (or career) in psychology.

The department of psychology at Dickinson College reflects the rather diverse heritage of its discipline. A quick look at the faculty and their interests and at the department's courses will give you a good indication of what the field of psychology includes at Dickinson College. Drawn from a variety of backgrounds and interests, students find that the department of psychology is broad enough to be able to pursue areas of personal interest, while at the same time not so large as to become impersonal.

Faculty:

Stephen B. Coslett, Professor of Psychology. Ph.D., University of Denver. Clinical psychology, abnormal, and physiological psychology are his major teaching interests. His current research is in the area of biofeedback relaxation and the somatization of psychosocial stress.

Frank R. Hartman, Associate Professor of Psychology. Ph.D., Pennsylvania State University. His early

writing interest and continuing teaching interest is in the process of effective instruction. His present writing interest is psychoanalytic theory and its application to the analysis of literature.

Larry A. Engberg, Associate Professor of Psychology. Ph.D., University of Colorado. As the department's resident behaviorist, his teaching and research interests are in the experimental analysis of behavior and theories of learning. Research interests include animal analogues to human behavior such as "Learned Helplessness" and "Learned Laziness," attentional processes in animals, autoshaping, and the nature of the operant. He has a strong secondary interest in the use of computers in psychology.

James A. Skelton, Associate Professor of Psychology. Ph.D., University of Virginia. His teaching interests are in social psychology and in the philosophy and design of psychological research. His research interests include self-perception of bodily states, interpersonal issues in health care, and psychology applied to social problems.

Gregory J. Smith, Associate Professor of Psychology. Chair. Ph.D., SUNY at Buffalo. He is concerned primarily with the normal development of infants and young children. His current research involves the assessment of mediational variables operating in preschool social interactions, investigations into infants' understanding of a two-dimensional representation, and documentation of developmental shifts in the ability to remember the location of objects in dense and spaced arrays. Besides teaching courses in child development, his course load reflects additional training in applied aspects of developmental psychopathology.

Walter Chromiak, Associate Professor of Psychology. Ph.D., Temple University. Human cognitive processes (perception, memory, and thinking) are the focus of his teaching and research interests. His current research examines how our memories influence our perceptions of our competencies. He is also interested in the cognitive processes which accompany the development of skills, such as chess playing.

James A. Boytim, Assistant Professor of Psychology. Ed.D., Indiana University at Bloomington. His special interests include counseling and consulting, psychology of aging, industrial and organizational

psychology, small group dynamics, and adolescent psychology.

Courses:

- 105. Violence and Aggression The course will present an overview of violence and aggression. Aggression will be viewed from the following approaches: ethological, psychoanalytic, frustration, social learning, and physiological. Offered in summer school only.
- 111. **Introduction to Psychology** A survey of areas of contemporary psychological study to acquaint students with viewpoints, findings, and techniques of investigation of the discipline.
- 131. Scientific Foundations of Psychology Designed for students seriously considering the psychology major, this team-taught course focuses on research design, learning, cognitive, social, developmental, and physiological psychology. Readings and laboratory excercises introduce students to the scientific methods of psychology. Class meets three hours per week, plus three hours for laboratory.
- 140. **Social Psychology** A survey of major current theories of social behavior and relevant findings of field and laboratory studies. Is available to and appropriate for any undergraduate student.
- 210. **Sleep and Dreams** This course will provide an introduction to the joint phenomena of sleep and dreams via a psychological exploration of the literature, both scientific and nonscientific, relating to these areas. Topics to be covered include early attempts to interpret dreams, stimulus determinants of dreams, and various psychological interpretations of the importance of dreams. *Offered in summer school only*.
- 220. **Experimental Analysis of Behavior** An introduction to operant conditioning in particular and to psychological experimentation and inference in general. The self-paced course has 20 unit tests, individual conferences, and five laboratory experiments. *Prerequisite:* 131.
- 221. **Research Design and Statistical Evaluation** An examination of statistical and non-statistical methods as they relate to the design and evaluation of ex-

- periments in the field of psychology. Extensive experience with practical applications will augment the instruction. *Prerequisite: 131*.
- 232. **Personality Psychology** A survey of major current theories of personality and relevant empirical and clinical literature. Is available to and appropriate for any undergraduate student.
- 237. **Developmental Psychology** A survey of contemporary findings, principles, and observational methodology of human development. The focus is on prenatal, infant, and child development. *Prerequisite:* 111 or 131.
- 238. Adolescent Pychology A survey of contemporary findings, principles and observational methodology concerning human development during the adolescent years. Consideration will be given to such topics as developmental tasks of early, middle, and late adolescence; physiological, intellectual, cognitive, social, and personal development in adolescence; adolescent values, attitudes, and problems. *Prerequisite: Psychology 131 or permission of instructor.*
- 240. **Cognitive Psychology** Cognitive psychology deals with the problems of how we acquire and use information, and how the acquisition and use of knowledge changes over the lifespan of the individual. Specific topics within this area include perception, attention, memory, language acquisition and development, problem solving, and thinking. *Prerequisite:* 131.
- 255. **Principles of Counseling** Review of theories and techniques of counseling as applied to developmental, educational, emotional, health-related, social, or vocational problems. Topics include standard theories, ethical and legal issues in counseling, preventive, educational, and interventional strategies for short-term, goal-focused counseling. Relevant for students who anticipate careers in the helping professions. *Prerequisite: 131 or permission of the instructor.*
- 276. **Abnormal Psychology** An introduction to various mental illnesses and techniques of diagnosis and treatment. Relevant for students who anticipate careers in medicine, law, and the various areas of social and psychological service.

Dickinson College Psychology 141



320. Cognitive Processes Explores problems of the design, conduct, and analysis of research in human learning, perceptual-cognitive processes, and related areas. Students perform, and prepare written reports of, experiments which exemplify methodological problems normally encountered in such research. Three hours of classroom and three hours of laboratory a week. Prerequisite: 131 and 240.

321. Advanced Experimental Conditioning Developing critical skills in relating psychological theory to empirical data. Advanced problems in animal learning and the stimulus control of behavior are explored. Three hours class and extensive independent laboratory research. Prerequisite: 220 and 221.

326. **Physiological Psychology** A review of the structure and function of the nervous system as variables in behavior and the psychological processes. *Three hours classroom and four hours laboratory a week. Prerequisite: 220 and 221.*

338. Experimental Child Psychology A survey of comprehensive theories of human development and of

contemporary research emphases of developmental psychologists. Students perform and prepare written reports of empirical studies of developmental phenomena. Three hours of classroom and three hours of laboratory a week. Prerequisite: 220, 221, and 237.

340. Advanced Social Psychology An introduction to the methods of data collection and evaluation in social psychology. Topics include techniques of measuring attitudes and social behavior, the design of research studies (including surveys and experiments), and the analysis and evaluation of data acquired from such studies. Prerequisite: 140, 220, or a course in statistical and research methodology, and the instructor's permission.

350. **Behavior Modification** An advanced course reviewing the conceptual and methodological bases of behavior modification. Specific applications of operant conditioning principles and other empirically derived techniques to control undesirable, unadaptive, or dangerous behaviors in a variety of populations will be presented. *Prerequisite: 220, 221.*

142 Psychology 1989-90 Catalogue

361. Introduction to Clinical Psychology An overview of clinical psychology as an academic discipline and as a professional art which includes the behavioral problems encountered along with procedures for their diagnosis and treatment. Relevant to those students seeking careers in the various areas of social and psychological service. *Prerequisite: 220, 221, and permission of the instructor.*

376. **Junior Seminar** Reading in, review of, and discussion about selected topics of current importance in the discipline. *Prerequisite: permission of the instructor.*

461. **Psychological Testing** The use of psychological tests and observational procedures in the assessment of individuals. *Prerequisite: 232 or 276, 237, 361, and permission of the instructor.*

471. **Systematic Psychology I** An advanced course, for students with a strong background in experimental psychology, which studies the major learning theories of the 20th century. *Prerequisite: 131, 220, 221, and 321.*

481, 482. **Senior Seminar** Readings in, reports of, discussion about, and critical examination of issues central in present day psychology. *Prerequisite: permission of the instructor.*

Psychology Internship A program reserved to those students who have applied themselves in the undergraduate offerings relevant to those aspiring to social or psychological careers of human service. Prospective enrollees in this course must satisfy the internship coordinators as well as meet the department's expectations. Opportunities for psychological internships are limited, and when there are too many applicants, the department will choose first on the basis of a completed course with the supervising faculty member at the 300/400 level, and then, if necessary, on the grade received in that course. *Prerequisite: permission of the department chairman*.

Major:

Ten courses, including 131, 220, 221 and any course from the 320 to 338 or 340 set of advanced laboratory courses. All students, including transfers, are expected

to take a minimum of five courses in the department, of which four must be at the 300/400 level. Only one course credit in internship may be applied toward the major. Students may apply to declare a major in psychology when they have completed Psychology 131, Scientific Foundations of Psychology.

Minor:

Six courses, including 131 and 220. Four courses must be taken in the department.

Public Speaking

he courses in public speaking are directed toward improvement in verbal communication and toward the development of greater self-assurance and ease in social and professional situations.

Courses:

211. **Public Speaking** The theory of and practice in the fundamentals of public speaking.

311. **Argumentation and Debate** The logic and strategy of debate. Group discussion techniques. Participation in debate.

Dickinson College

Religion

"Religion consists of *God's question and Man's answer*. The way to faith is the way of faith. The way to God is a way of God. Unless God asks the question, all our inquiries are in vain."

Abraham J. Heschel

"It (religion) is the opium of the people." and "Religion is the sigh of the oppressed creature, the feeling of a heartless world, and the soul of soulless circumstances."

Karl Marx

"The [American] Indian, after the manner of our compass, not only organized the plane of the earth with respect to the radical four of the cardinal points, but . . . also subdivided the Above from the Below . . ."

Black Elk

"Religion is a system of symbols which acts to produce powerful, pervasive, and long lasting moods and motivations."

Clifford Geertz

"Call it what you like. All that stuff to me is just bad sex."

Frank on religion in the play Equus

"Black religion and Black radicalism are historic and complementary aspects of an essential characteristic of the Black experience in America—a pervasive "pragmatic spirituality" which . . . has always expressed itself in terms of a religio-political struggle for humanization and liberation."

Gayraud S.Wilmore

"What is the sound of one hand clapping?"

Japanese Buddhist Monk Hakuin

"Faith, therefore, is not a matter of the mind in isolation, or of the soul in contrast to mind and body, or of the body (in the sense of animal faith), but is the centered movement of the whole personality toward something of ultimate meaning and significance."

Paul Tillich

"... God represents the necrophilia of patriarchy, whereas Goddess affirms the lifeloving being of women and nature."

Mary Daly

"What it (the study of religion) can do is to show that the understanding of religion, and even of ideology, is a necessary and indeed illuminating part of the human enterprise of accounting for the world in which we live."

Ninian Smart

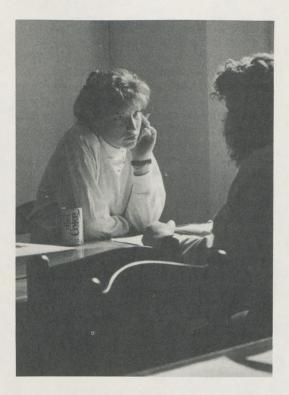
Courses in religion intellectually explore, compare, seek to appreciate, critically evaluate, and develop theories about all the issues stated above and many more. Because of the diversity of religious phenomena and differing interests of students we invite a student to begin the study of religion in any course which does not have a prerequisite. One hundred-level courses are broader in content; 200-level courses have a narrower focus on a topic or a tradition.

Faculty:

Harry F. Booth, Professor of Religion. Ph.D., Boston University. His teaching focuses on the dynamics of religion as both expressive and critical of culture, and theology as both expressive and critical of religion. His general scholarly interests are in historical and liturgical theology and the theology of culture, especially social ethics and literature. His present special interests are in Dietrich Bonhoeffer, in J.R.R. Tolkien, and war and peace studies.

Daniel R. Bechtel, Professor of Religion. Chairman. Ph.D., Drew University. His teaching responsibilities focus upon the interpretation of the Biblical texts in their ancient contexts. The impact of the Biblical materials upon later theological, ethical, and symbolic developments is a dimension of his concern for the continuing processes of interpreting the Bible. His research interests are the Gospels, the social world of the early church and hermeneutics.

Stanley N. Rosenbaum, Associate Professor of Religion and Classics. Ph.D., Brandeis University. He is a trained historian and Biblicist. Special interests include American Jewish history and literature and Jewish-Christian relations.



Daniel G. Cozort, Instructor in Religion. M.A., University of Virginia. His teaching embraces the religions of South Asia, within which his specialty is Tibetan Buddhism.

Contributing Faculty:

Harry D. Krebs, Associate Professor of East Asian Studies

David Commins, Assistant Professor of History

Courses:

A. Religious Traditions

103. **Introduction to the Old Testament** A critical examination and attempt to understand the literature and the antecedent traditions remembered and formulated by the ancient Israelites in terms of their own views of God. This literature is interpreted in the context of events and cultures of the ancient Near East.

104. **Introduction to Judaism** A basic course in the history, basic beliefs and practices, and modern manifestations of Judaism as a religion. The course con-

cerns itself with the interactions of Judaism and other world religions, notably Christianity.

107. Introduction to the New Testament A critical examination and attempt to understand the New Testament as the written traditions which articulated the faith, expectations, and actions of the early Christians as they responded within Jewish and Greek culture to the historical events of their day, and especially as they responded to the life and death of Jesus of Nazareth.

108. The Emergence of the Christian Tradition The complex emergence of orthodoxy and the limits of its pluralism; the Church, its liturgy and doctrine; its self-understanding and its way in the world; the first four centuries.

109. The Emergence of the Protestant Tradition The Reformation and reformations of the 16th century; their impulse and critiques; their solidarity and divergences; the problem of constructive Protestantism.

118. Greek and Russian Orthodoxy An introduction to the spiritual sources, liturgical expressions, and theological interpretations of Orthodoxy; and to some of the mutual influences of its interaction with Russian history and culture. Of special interest to Orthodox students, religion and Russian majors, and other seekers.

200. Traditions in the History of Religions (In different semesters: Puranic Hinduism; Islam; Taoism; Confucianism; Celtic and Nordic Religion and Mythology; Greek Religion). Specialized historical, textual, and phenomenological studies. *Prerequisite: 100, 120, or 130 as appropriate to topic, or permission of the instructor.*

201. **Tibetan Buddhism** Studies in Vajrayana (esoteric) Buddhism as traditionally practiced in Tibet. Largely working from basic documents. *Prerequisite:* 100, 120, or permission of the instructor.

202. **Zen Buddhism** A study of the many phenomena of Chinese and Japanese Zen: historical development, socio-cultural context, personalities, texts, practices, perceptual and ideational structures, and aesthetics. *Prerequisite:* 100, 120, or 130, or permission of the instructor.

- 204, 205. **The History of the Jews** A survey of the history of the Jewish people from ca.445 B.C.E. to 1786 C.E. Two semesters: 204, Ezra to Islam: Hellenism, "Normative Judaism," Christianity. 205. Muhammad to Mendelssohn: Islam, Crusades, Jewish Philosophy, Reformation, Enlightenment.
- 303. Studies in the Bible Critical examination and discussion of selected topics in the Old Testament, in the New Testament, or in both. In different semesters: The Prophetic Tradition; Wisdom in Israel and the Ancient Near East; Sacred Story; Amos; The Portrayal of Jesus in Traditions and History; The Gospels; New Testament Theology: Paul, John, Hebrews. Prerequisite: 103 or 107 or permission of the instructor.
- 306. Studies in the Jewish Tradition: Principles and Topics in Jewish Law A general study of the growth, nature, and content of Halakhic and Midrashic material; Modern Jewish Thought: 19th and 20th century Jewish responses to the problems attendant upon "emancipation," emphasis on Buber, Heschel, Rosenzweig. Prerequisite: 103 or 204, 205 as appropriate to topic, or permission of the instructor.
- 308. **Studies in Christianity** Studies in typical and unique individuals, in historical movements and periods, and in facets and problems in Christian thought: St. Augustine, Medieval Saints and Sects, Dietrich Bonhoeffer, Liberation Theology, Women in Western Christian Traditions. *Prerequisite: 100 or 108 or 109, as appropriate, or permission of the instructor.*

B. Religion and Culture

- 110. Western Religion and Modern Culture Interpretive analyses of aspects of modern culture and sensibility—literary, social, and institutional—from both secular and theological sources; inquiry into the dimensions of religion in culture, personal, social-ethical, and ecclesiastical.
- 116. Jews and Judaism in the United States, 1654— Traces the history of Jewish immigration to America and how the American experience has produced and nurtured new forms of Judaism, notably Reform and Conservative. The course concentrates on the last hundred years of American history and includes such topics as anti-Semitism, the Holocaust, and Israel.

- 203. The Bible and Contemporary Issues The impact of Biblical world views, perspectives, and laws upon the generation and resolution of contemporary problems; e.g., environmental abuse, sexism and sexual problems, injustice, and war.
- 210. **Studies in Religion and Culture** Religion in Art and Literature; Theomythology of J.R.R. Tolkien; Religion and Rembrandt; The Holocaust; American National Religion; Contemporary Catholic Social Thought.
- 213. Biblical Views of Women, Men, and God A critical analysis of the different Biblical views concerning the significance of gender for personal and corporate religious practice, for the ordering of religious and social institutions, and for images of God and the human condition.
- 216. American Jewish Fiction A more or less chronological survey of landmark novels and short stories by American Jewish writers from Abraham Cahan to Saul Bellow, Joseph Heller, and Cynthia Ozick. Examines the themes and symbol structures that permeate Jewish writing. *Prerequisite: 116 or permission of the instructor.*
- 217. Jesus in Theology, Art, and Literature A cross cultural and comparative study of the diverse interpretations of the person and work of Jesus in theology, art, and literature in ancient and modern times and in different cultures of the world. *Prerequisite: one course in religion or permission of the instructor.*
- 218. War and Western Values Literary and philosophical expressions of the experience of war; analyses of the nature of war in human affairs, and of restraints on and in war; assessment of the 'special case' of nuclear armaments and strategies.
- **C.** Comparative Study of Religious Phenomena 100. Religions of the World A general survey of the great world religions of East and West and their backgrounds in primitive and archaic religions.
- 120. **Religion in South Asia** An introduction to the formative role of religious consciousness in the development of the cultures of India.

- 130. **Religion in East Asia** An introduction to the formative role of religious consciousness in the development of the cultures of China and Japan.
- 220. **Primal Religions** Selected examples of religion at the cultural horizons of hunters and gatherers, early agricultural peoples, and pastoral nomads.
- 240. Comparative Studies of Religious Phenomena Selected topics comparing religions or religious phenomena; e.g., Mysticism; Sacred Texts; Prophets and Prophecy; Saints; Creation Myths; Religion, Magic and Technology; The Goddess. *Prerequisite:* will be determined by the topic selected for study.

D. Approaches to Religion

- 190. **Introduction to Study of Religion** An introduction to and an analysis of a variety of traditional, popular, and scholarly approaches to and views of religion; e.g., psychological, anthropological, philosophical, theological.
- 222. Myth, Ritual, and Faerie Methodological approaches to the study of religious symbolism as verbalized in myth and acted out in ritual; with a special look at the role of the fairy-story ("para-myth") in communicating symbolical values.

In addition to the courses taught within the department, majors and minors may use one of the following to meet the requirement of a course in this group. Phil.251, Philosophy of Religion Psych.430, Psychology of Religion Anthro.332, Anthropology of Religion

490. **Critics of Religion** A senior seminar exploring the arguments and perspectives of critics of religion in the 20th century. *Prerequisite: major or minor standing in the department or permission of the department.*

Major:

Entails a minimum of 10 courses.

- Two courses, each of which concentrates upon a single religious tradition or perspective (Group A: Religious Traditions).
- 2. One course on the relationships between religion and culture (Group B: Religion and Culture).

- One course comparing types of religious phenomena in more than one religious tradition or culture (Group C: Comparative Study of Religious Phenomena).
- 4. One course concentrating upon the methods for study and critical analysis of religious phenomena (Group D: Approaches to Religion).
- Three additional courses either clustered under a single religious tradition or focused upon the relationships between religion and culture or focused upon the comparison of types of religious phenomena.
- One additional course either within the department or approved by the department for credit toward the major.
- A senior seminar (Religion 490), or, under advisement, an independent study or research project.

Note A. A major may count no more than five courses taken at the 100 level toward the required 10 courses.

Note B. Majors who are considering graduate study in religion are encouraged to consult with a department member concerning the appropriate language preparation.

Minor:

- 1. One course from Group A: Religious Traditions.
- 2. One course from Group B: Religion and Culture.
- 3. One course from Group C: Comparative Study of Religious Phenomena.
- 4. One course from Group D: Approaches to Religion.
- 5. Two additional courses at the 200 or above level.
- Departmental approval of minor standing and departmental advice on course selections.

Russian

he Russian program offers a wide range of courses in language, literature, culture, and civilization, all designed to develop students' understanding of the distinct ways in which the Russian people think, feel, and live their lives. With language as the basic tool, students are encouraged to probe into the primary structures of Russian society, to challenge their own assumptions of reality and truth, and to become more sensitive to the differences between our nations and peoples.

The three-semester sequence of basic language instruction is intended for students with limited or no prior knowledge of Russian. The goal of these courses is to allow students to develop their basic skills in order to communicate both orally and in writing. At the end of the three-semester sequence, students may apply to the Russian Practicum (Russian 215) at the Mendeleev Institute in Moscow. This is a four-week immersion program held each summer in Moscow, U.S.S.R. It combines intensive language instruction by native speakers with field trips to cultural sites.

Intermediate and upper-level courses (200 and above) are open to all interested and qualified students, but can lead as well as to major or minor in Russian. Flexibility in offerings allows students to pursue individual interests in advanced language study, in literature, and in culture and civilization, while the required courses (Russian 221, 222 or 223, 224) provide the broad perspective that gives meaning to this specialization. Russian literature and culture embody the heights of human achievement as well as human failure and represent a study of human potential. The writings of authors such as Tolstoy, Dostoevsky, Chekhov, Pasternak, and Bulgakov reflect the highest aspirations of the human spirit. Special topics courses focus on a particular aspect of literature or culture, and the course offerings of other departments at Dickinson frequently emphasize Russian themes.

A strong cocurricular program at Dickinson supports the Russian offerings through the Russian language club, Russian language table, lectures, films, ex-

cursions, radio broadcasts, and other activities. The department also encourages advanced Russian students to study either at the Dickinson College Center at the Mendeleev Institute in Moscow, U.S.S.R., or in other quality programs in the Soviet Union, such as the Pushkin Institute in Moscow, or at the Leningrad State University in Leningrad.

A major or minor in Russian meshes well with other campus programs. Many students have complementary majors in a variety of other academic disciplines. Students have gone on to do graduate work in Russian, and in other fields as well, such as medicine, computer science, geology, sociology, and others. They have become business executives, teachers, lawyers, editors, musicians, and physicians.

Faculty:

Helen Segall, Associate Professor of Russian. Chairwoman. Ph.D., Bryn Mawr College. Her teaching interests include Russian literature of the 19th and 20th centuries, Soviet literature, Russian theater and drama, and Russian culture and civilization. Her scholarly interests focus on the Russian avant-garde, Russian Futurism, and Vladimir Mayakovsky in the 1920s, and on Russian and Soviet literature of the post-Stalin period. Her current research includes the works of two contemporary Russian writers, Vladimir Voinovich and Liudmila Petrushevskaya.

Tatiana Osipovich, Assistant Professor of Russian. Ph.D., University of Pittsburgh. Her scholarship has focused on Russian literature, particularly the works of Andrei Platonor. Her current research involves the problem of sexual morality in Russian literature and philosophy.

Marianna Bogojavlensky, Part-time Professor Emerita of German and Russian. Ph.D., University of Pennsylvania. Her special teaching interests concern methods of teaching foreign languages and Russian classical literature. Her main research interest is religious thought in Russian and Soviet literature.

Courses:

101-104. **Elementary Russian** An intensive study of the fundamentals of Russian grammar, with an emphasis on the development of reading, writing, speaking, and understanding skills. Short stories and songs

will supplement the text. Please refer to Graduation Requirements (Languages).

- 116. **Intermediate Russian** Advanced grammar review incorporating controlled reading and composition. Emphasis on speaking competence continued through oral reports and conversational topics. *Prerequisite:* 104 or the equivalent.
- 200. Advanced Training in the Russian Language Emphasis on the development of reading, speaking, and writing skills. Reading of simple texts to acquaint the student with a variety of styles of the Russian language, concentration on some of the more difficult problems in the Russian grammar, translation, written composition, vocabulary building, and intonation. Prerequisite: Russian 116 or equivalent, with a grade of at least C.
- 221. Russian Culture and Civilization to the 1860s A study of significant features of Russian literature, art, architecture, music, and theater from the times of the Scythians through the middle of the 19th century. Major developments during the Kievan, Muscovite, and Imperial periods will be highlighted. Films, slides, and records will supplement the reading and lectures. Conducted in English. Offered every other year.
- 222. Russian Culture and Civilization from the 1860s to the Present A study of the various phases in Russian intellectual thought, literature, arts, and music. The focus will be on the origins, rise, and fall of the Russian avant-garde during the first two decades of our century and on the rebirth of Russian culture during the post-Stalin period. Films, slides, and records will supplement readings and lectures. Conducted in English. Offered every other year.
- 223. Survey of Russian Literature in Translation An introduction to Russian literature, presenting its development and the major literary movements from the earliest period to the middle of the 19th century. Readings will include works by Pushkin, Lermontov, Gogol, Goncharov, Turgenev, and Tolstoy. No knowledge of Russian necessary. Conducted in English. Offered every other year.
- 224. Survey of Russian Literature in Translation An introduction to Russian literature, presenting its

development and the major literary movements from the middle of the 19th century to the present. Readings will include works by Dostoevsky, Chekhov, Gorky, Blok, Mayakovsky, Babel, Zamiatin, Gladkov, Bulgakov, Pasternak, Solzhenitsyn, Voinovich, Trifonov, Shukshin, and Aitmatov. No knowledge of Russian necessary. Conducted in English. Offered every other year.

- 231, 232. **Russian Conversation and Composition** Practice in the techniques and patterns of everyday conversation, especially as these reflect different cultural orientation. Reading and discussion of short works by well-known Russian authors. *Prerequisite:* 200 or the equivalent, with a grade of at least C.
- 233, 234. **Masterpieces of Russian Literature** Reading and discussion of literary works by representative authors from the pre- and post-Revolutionary periods. *Prerequisite: 200 or the equivalent, with a grade of at least C.*
- 241. **The Works of Tolstoy and/or Dostoevsky** A study of the major works of Tolstoy and/or Dostoevsky focusing on the artistic features of each novelist and on his place in the history of Russian culture. Parallels and contrasts between the two writers will be examined on occasions when the works of both are taught. *Conducted in English. Offered every other year.*
- 242. Russian Literature of the 20th Century A study of Russian Literature covering the "Silver Age," the best of Soviet literature, and contemporary developments such as the development of literature of dissent and literature in emigration. Includes works by Chekhov, Bunin, Bulgakov, Nabokov, Pasternak, Solzhenitsyn. Conducted in English. Offered every other year.
- 260. **Topics in Russian Studies** In-depth analysis and discussion of selected areas and problems in Russian literature or culture. Recent topics have included: Russian Theatre and Drama, Nobel Laureates in Russian Literature, Russian Short Prose, Salvation Through Beauty: the World of Dostoevsky. *Conducted in English. Offered every other year.*
- 360. **Topics in Russian Language and Literature** A thorough investigation of a significant figure or major development in Russian literature, or an extensive

Dickinson College Russian 149

examination of selected aspects of the Russian language, with emphasis on seminar reports and discussions. Conducted in Russian. Prerequisite: Russian major or instructor's permission.

The following course is offered in Moscow:

215. The Moscow Practicum A four-week course in contemporary Russian language and culture offered in Moscow, U.S.S.R. Students will speak only Russian during this four-week period, and participate in intensive language classes, special lectures and field trips arranged by Dickinson with Russian university instructors. Prerequisite: Russian 116 or equivalent and permission of the department.

Major:

At least ten courses, numbered 200 and above. Six courses must be in the Russian language. Two courses should cover Russian literature or Russian culture and civilization, one from the earlier and one from the later period: Russian 221 or 223, and Russian 222 or

224. One course should be selected from any of the Russian Literature courses offered in the department; and one should be selected from the following: History 253, History 254, Economics 376, Music 105*, Philosophy 261*, Political Science 253, Political Science 283, Religion 118, Sociology 252. *When topic is approved by the director.

Majors will be encouraged to:

- participate in the Interdisciplinary Russian and Soviet Area Studies Senior Seminar: Russian 401.
- 2. participate in a semester or summer study program in the U.S.S.R.,
- reside (for at least one year) in the Russian House.

Minor:

Five courses numbered 200 or above. Four of these courses must be in the Russian Language.

Note: See also Russian and Soviet Area Studies which offers a major and minor program.



Russian and Soviet Area Studies

his interdisciplinary major is designed to provide the student with a broad, balanced understanding of Russia and the Soviet Union. Through a series of interrelated courses the student will gain an in-depth view of the rich cultural, historical, and political heritage which underlies past and present policies of the contemporary Soviet state.

The specific courses offered include Russian literature, language, history, politics, economics, sociology, religion, philosophy, music, and art. Students also have the opportunity to participate in the Dickinson College Russian Language Immersion Program in Moscow (Russian Practicum: Russian 215) and in other language study programs abroad. In addition, Dickinson College provides students with the opportunity to attend numerous cultural events on campus and in nearby cities. These courses and activities provide a perspective necessary to view actions and events by which the Soviet Union has and will have an impact upon the life and politics of all Americans. It will also provide a critical perspective through which a broader understanding of our own culture, heritage, and actions will be gained.

This broad, flexible major serves as excellent preparation for individuals intending subsequent specialization in law, international relations, business, politics, government service, and teaching. It also makes a sound companion program for those who are interested in a double major.

For detailed course descriptions students should check information given under the specific departments.

Contributing Faculty:

Russell Bova, Assistant Professor of Political Science, Coordinator

Marianna Bogojavlensky, Professor Emerita of German and Russian Language and Literature

Harry F. Booth, Thomas Bowman Professor of Reli-

Truman C. Bullard, Professor of Music Philip T. Grier, Associate Professor of Philosophy George N. Rhyne, Associate Professor of History Helen R. Segall, Associate Professor of Russian Neil B. Weissman, Associate Professor of History Tatiana Osipovich, Assistant Professor of Russian

Courses:

401. Interdisciplinary Seminar Intended to integrate the several approaches of the Russian and Soviet Area Studies Program and to provide a framework for independent study of a comparative nature. Offered cooperatively by the staff of the program. Prerequisite: permission of the instructor.

Major:

- 1. Three courses from the following courses taught in the Russian language: Russian 231, 232, 233, 234, 360.
- 2. Two courses in Russian literature or in Russian culture and civilization, one from the earlier and one from the later period: Russian 221 or 223, and Russian 222 or 224.
- 3. Two courses in Russian history: History 253 and
- 4. Interdisciplinary Seminar: Russian and Soviet Area Studies 401.
- 5. Four courses of the following, to be selected from at least two different departments and to include at least two courses from Division II, the Social Sciences:
 - a. History 313*, 389*
 - b. Economics 376
 - c. Music 105*
 - d. Philosophy 261*
 - e. Political Science 207, 253, 283, 290*, 390*
 - f. Religion 118
 - g. Russian 221**, 222**, 223**, 224**, 234**, 241, 242, 260, 360
 - h. Sociology 252

Minor:

Option A:

1. Russian 200 or the equivalent.

- One course in Russian literature or Russian culture and civilization.
 - b One course in Russian history. One from a or b should be in the earlier, one in the later period.
- 3. Interdisciplinary seminar: Russian 401.
- 4. Two other courses from the following:
 - a. Economics 376
 - b. History 253, 254, 313*, 389*
 - c. Music 105*
 - d. Philosophy 261*
 - e. Political Science 207, 253, 283, 290*, 390*
 - f. Religion 118
 - g. Russian 231, 232, 233, 234
 - h. Russian 221**, 222**, 223**, 224**, 231, 232, 233, 234**, 241, 242, 260, 360
 - i. Sociology 252

Option B:

- 1. a. One course in Russian literature
 - b. One course in Russian culture and civilization
 - c. One course in Russian history.

One from a or b or c should be in the earlier period.

- 2. Interdisciplinary seminar: Russian 401.
- 3. Two other courses from the following:
 - a. Economics 376
 - b. History 253, 254, 313*, 389*
 - c. Music 105*
 - d. Philosophy 261*
 - e. Political Science 207, 253, 283, 290*, 390*
 - f. Religion 118
 - g. Russian 221**, 223**, 224**, 241, 242, 260, 360
 - h. Sociology 252
- * When the topic is approved by the director.
- ** If different from "2".

Science

ourses in the history and contemporary dimensions of science are intended to orient liberal education to the scientific and technological basis of modern civilization.

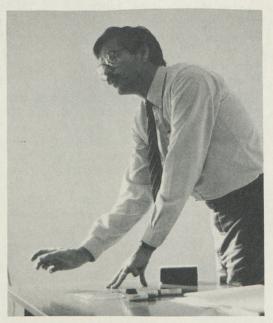
The history of science courses examine the emergence of science within the larger cultural environment, exploring the relationship between science and other forms of human experience, such as social and political movements, technology, philosophy, religion, and mysticism. In examining the historical development of science from earliest to modern times, these courses also focus on the nature of science itself: what are hypotheses, theories, laws, and research traditions?; how are they related to one another?; does science grow?; how is scientific knowledge related to reality?; if science changes over time, what exactly changes—methods and/or content?

While science has an internal momentum that drives the scientific enterprise, science also has a social, economic, and institutional context. Courses in contemporary science focus on issues that are central to modern society, and explore the ways by which science and society can understand the larger natural world. These are issue-oriented courses in which specific scientific and technological problems are carefully examined.

No major or minor is offered in this program. All courses in this program, in addition to those likewise designated in other science departments, satisfy the third (non-laboratory) course of the science requirement (in Natural Science).

Faculty:

E. Robert Paul, Associate Professor of Computer Science and the History of Science. Coordinator. Ph.D., Indiana University. His areas of specialization include the development of science since the Renaissance, with emphasis on research traditions in emerging scientific frameworks. His recent research includes historical studies in modern physical science,



the interaction of science and religion, and the development of cosmology since the Enlightenment. (On leave 1989-90)

Contributing Faculty:

Neil S. Wolf, Professor of Physics T. Scott Smith, Associate Professor of Physics Thomas L. Drucker, Assistant Professor of Mathematics

Courses:

211. Science from Antiquity to the 17th Century The first half deals with Greek, Arabic, and Medieval Latin theories of matter, motion, and growth, including the transmission of science and science education. The latter half deals with the scientific revolution from Copernicus to Newton with attention focused on the radical restructuring of basic assumptions about nature and method.

212. Science from Newton to Einstein Growth of quantitative methods in physical science and experimental methods in biology and natural history in the 18th, 19th, and early 20th centuries. Particular emphasis on Enlightenment and Romantic science, Dar-

winian evolution and genetic theory, the new physics of relativity and quantum mechanics, and modern cosmology. Gradual separation of science from philosophy and theology.

258. Topics in the History of Science The nature of science as a major aspect of Western civilization. Examines science and the scientific enterprise by devoting particular attention to the following: the structuring of basic assumptions about nature and method; social, cultural, and religious dimensions of scientific change and discovery; noted developments in the physical and life sciences. Topics vary and will be announced each term. Recent topics have included: The Scientific Revolution, History of the Physical Sciences, Development of Cosmology, Darwin and Social Darwinism, Science and Religion, History of Mathematics, American Science, and History of Medicine. Prerequisite as needed.

260. Contemporary Science: Nuclear War & Peace A lecture course on nuclear reactors, nuclear weapons, and the arms race. Topics include: the recent energy crisis, the scientific basis of nuclear power, the promise and hazards of nuclear power reactors; the history, technology, and effects of nuclear weapons, American and Soviet strategic positions, new weapons systems, and disarmament proposals. This course is cross-listed as Environmental Studies 260.

The following contemporary science courses are cross-listed in their disciplinary departments and also satisfy the third science requirment:

Biology 105. Biological Aspects of Contemporary Problems.

Biology 108. Modern Natural History.

Environmental Studies 111. Environment, Culture, and Values.

Geology 220. Environmental Geology.

Geology 221. Oceanography.

Physics 102. Meteorology.

Physics 105. Life in the Universe.

Dickinson College Science 153

Sociology

Sociology studies how human beings live in groups and societies they establish and how they judge the meanings of their social life. Starting with the individual, sociologists observe how the commitments of social beings, expressed in everyday interactions, bind them together in social relationships and result in the production of value, belief, and behavioral systems. Starting with societies, cultural traditions, and whole civilizations, sociologists inquire into the alternative cultural designs, forms of social organization, and modes of consciousness by which people in cooperation and in conflict order their shared lives and individual identities.

Sociology seeks to foster reflective selfunderstanding in its students through heightened awareness of their and others' underlying commitments. It hopes to enhance their ability to perform well in the various relations, communities, institutions, and practices of their own society and the world.

Society's concerns do not resolve themselves in disciplinary isolation. Majors will find it helpful to become closely acquainted with at least one other discipline in the humanities or the social sciences, such as political science, history, religion, philosophy, psychology, economics, or one of the regional programs: American, Russian and Soviet, Latin American. Double majors and interdisciplinary studies are encouraged and assisted.

An emphasis on sociology's educative rather than training value has enabled majors to serve in a broad range of endeavors, not only university and secondary teaching, law, social work, and counseling, but also journalism, urban politics, and business management.

Faculty:

Vytautas Kavolis, Professor of Sociology. Ph.D., Harvard. His past publications include the sociology of art, comparative social problems, and cultural psychologies. His current research involves empirical

mapping of moral cultures, comparative histories of selfhood and sociability, cultural modernization, and antimodernist movements.

Marvin Israel, Associate Professor of Sociology. Chairman. B.A., City College of New York. He is interested in the moral and philosophical analysis of fundamental theoretical perspective in sociology. He specializes in social theory, the relations between men and women, deviant behavior, and studies of the spiritual dimensions of bodily practices such as fitness activities and eating. (On leave Spring 1990)

Susan D. Rose, Assistant Professor of Sociology. Ph.D., Cornell University. She specializes in comparative (cross-cultural and historical) family systems and the history of the life course. Her research focuses on socialization, with an emphasis on the institutions of family, education, and religion. Publications include Keeping Them Out of the Hands of Satan: Evangelical Schooling in America, 1988.

Contributing Faculty:

George Friedman, Professor of Political Science Neil B. Weissman, Associate Professor of History

Courses:

110. **Social Analysis** Selected topics in the empirical study of the ways in which people's character and life choices are affected by variations in the organization of their society and of the activities by which social arrangements varying in their adequacy to human needs are perpetuated or changed.

212. **Relations Between Men and Women** Love and its aberrations, men's and women's perceptions and treatments of one another, the nature of masculinity and femininity, homosexuality, and pornography analyzed from a sociological perspective, but drawing on a wide selection of sources in sociology, psychology, philosophy, literature, and film.

220. **Community Studies** The study of the organization of communities from an institutional perspective. Beginning with Middletown, we will examine a number of sociological classics that illuminate the structure, norms, and ethos of various communities,

and specific insitutions (such as work, family, church, prison, and social welfare). A major objective is to develop students' imagination and insight into the workings of their society. As an applied sociology course, students will be involved in fieldwork in nearby communities. The course meets the methods requirement for sociology majors and provides good training for those planning to study abroad.

221. **Self, Culture, and Society** The diverse ways in which human beings comprehend what kinds of persons they are. Close reading of autobiographies and analysis of sociopsychological climates in which particular experiences of selfhood arise and of civilizational categories by which they are judged to be valid or not.

222. **The Family Phenomenon** In both the ideal and real worlds, the family is credited with producing social leaders and blamed for creating social misfits.

Social scientists, policy makers, and writers have focused on the family as a central and powerful social institution. This course explores the nature and role of families, and how families vary across cultures and over time. The course will address such topics as socialization, gender, work-family issues, and domestic violence.

223. **Deviant Behavior and Social Control** Critical examination, through original works by Merton, Parsons, Cohen, Cloward, Matza, McHugh, Blum, and others, of the two major contrasting approaches in American sociology to the theoretical explanation of delinquency and crime. Crime and evil will also be examined by using Plato to reflect on the Holocaust.

224. Comparative Race and Group Relations An analysis of different ways of arranging relations between racial, ethnic, and religious groups in complex heterogeneous societies. Ideological, social, and psy-



Dickinson College Sociology 155

chological sources of prejudice, cooperation, and peaceful coexistence. Group identities, their subversions, manipulations, revivals, upgradings.

225. **Urban Life** The nature of the city and how it fosters cosmopolitanism and urbanity. Urban planning, good and bad. City lifestyles contrasted with those of the suburb and country. Includes optional field trip to New York City.

252. **Soviet Social System** Social structure and dynamics of the Soviet Union. Identification of the areas of strain and the different possible directions of change. Comparison with American institutions.

332. Images of Man and Society in Western Thought Consideration of major social thinkers' conceptions of the good life and the metaphors by which they explain the relationship among persons and between persons and institutions. Some metaphors are love, the jungle, the organism, the marketplace, the stage, and the game. Readings drawn from Plato, Hobbes, Rousseau, Locke, Marx, Durkheim, Weber, Simmel, Parsons, Goffman, and others.

340. Social Change and Social Movements Key issues in the study of sociocultural change. Dynamics of movements which have sought to promote or resist changes in society, culture, or human character. Broader processes of change that keep shaping the world of our experience. Relations of particular social movements to long-term cultural changes.

341. Class and Culture Emergence of different forms of social inequality and efforts—religious, democratic, revolutionary—to attain equality in complex societies. Influences of class position and general ideology on the formation of beliefs and ways of life. The distinctive cultures of particular classes; peasantry, aristocracy, bourgeoisie, the working class, the intelligentsia, and the techno-bureaucracy. Historical stages in the development of these classes and their national variants.

350. Comparative Social Pathology A review of both American and cross-cultural studies of the social origins of destructive and self-destructive behavior. Social institutions, social change, and cultural values

as sources of damage to life, health, and sense of meaningful existence. Pathological myths. Responses to pathology.

390. **Sociology Seminar** A specialized seminar, intended to relate a broad area of theoretical concern to the problems and procedures of current research. Regularly offered topics: Youth and Adulthood; American Society; Art and Society; Fatness, Fitness, Anorexia and Exercise; Moral Cultures; Sociology of Religion; Family, Work, and Social Policy. *Prerequisite: permission of the instructor.*

395. **Senior Thesis** Independent study, in consultation with a specially constituted faculty committee, of a problem area chosen by the student. The student should, in addition to pursuing his/her own interests, also seek to demonstrate how various perspectives within sociology and, where relevant, other disciplines bear on the topic chosen.

Major:

Nine courses, including 110; 332; a course in sociology oriented to research methods such as Quantitative Research Methods, Community Studies (or Anthropology 333); and six other courses, two of which may with the approval of the adviser be taken from outside of the department. A senior thesis is recommended. At least one course providing a review of and training in the methods of research in a substantive field of sociology will be offered each year.

Minor:

Six courses, including 110, 332, four other courses.

Spanish and Portuguese

he Department of Spanish and Portuguese offers courses designed to introduce the student to the language, literature, and civilization of the Spanish-and-Portuguese speaking world. For those who need instruction on the elementary and intermediate levels, the courses are offered on an intensive basis with five class meetings a week. These courses as well as the ones in conversation and composition are designed to help the student in any other major who needs Spanish to complement his or her studies.

The Spanish and Portuguese department has developed an immersion program in Málaga, Spain, which will give students who have completed the introductory sequence of courses in Spanish an opportunity to augment their language skills by spending a month immersed in the Spanish language and culture. Students accepted into this program will live in Spanish residencies, be assigned special tutors who are graduate students at the University of Málaga and will have daily classes with faculty from Málaga and Dickinson. Students who have completed the immersion experience are expected to have increased ability to use Spanish in their reading and research as well as to have increased skill in oral communication.

For those students planning a major in Spanish, the department encourages them to enroll in the full-year or fall-semester program at the Dickinson College Study Center at the University of Málaga, Málaga, Spain. Through advanced courses in language and literature, both on the Carlisle campus and abroad, Spanish majors acquire a better understanding of Hispanic culture. In the time spent abroad they are encouraged to integrate this foreign experience with the departmental program. The flexibility of this program is such that, depending upon the student's personal goals and postgraduation plans, many tracks and combinations of study are possible. Often majors also will have a second major in such areas as anthropology, sociology, international studies, psychology, economics, or another language. A certificate in Latin American studies is also a highly attractive way to combine various disciplines and pursuits of study. In this case, study in Latin America with programs approved by the department is encouraged.

Knowledge of the Spanish language and culture can be a major asset in professional schools and many positions in business and government. Most recent graduates in Spanish are currently employed in teaching, government agencies, social work, and private business. A number of them are now doing graduate work in Spanish, and some of them have held short-term teaching positions abroad.

Faculty:

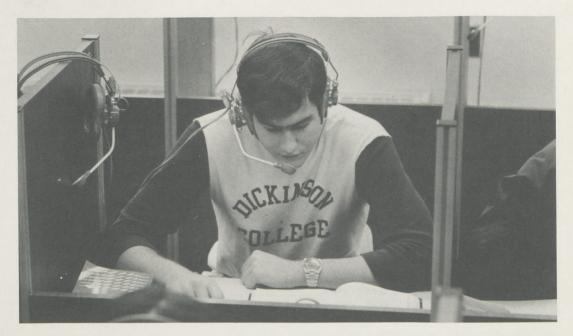
Enrique Martinez-Vidal, Professor of Romance Languages. Chairman. Ph.D., University of Pennsylvania. His teaching interests lie mainly in peninsular studies in general and the theatre in particular (Spanish and Portuguese). Besides his studies in the theatre of the Golden Age, his current research includes studies in Brazilian culture and civilization.

Arturo A. Fox, Professor of Spanish. Ph.D., University of Minnesota. His teaching interests include Latin American culture and civilization as well as the novel and short story in Spain and Latin America. He has written many articles on diverse literary themes and also is the author of two readers. He is also an accomplished writer of novels and short stories. (Director of Málaga Program, 1988-90)

Grace L. Jarvis, Senior Lecturer in Spanish. M.A., University of Missouri. Her responsibilities include the teaching and coordination of introductory language courses, and the supervision of extra and cocurricular activities sponsored by the department. Her research interests include multi-lingual and multi-cultural education, and international education.

Christopher L. Anderson, Assistant Professor of Spanish. Ph.D., Indiana University. While his main teaching and research interests are 19th and 20th century Hispanic literature, he has also written articles on *Don Quijote* and George Orwell.

Keith H. Brower, Assistant Professor of Spanish and Portuguese. Ph.D., The Pennsylvania State University. His main teaching and research interests lie in 20th century Spanish American and Brazilian litera-



tures, particularly the contemporary novel. He has published critical pieces on works by Carlos Fuentes, Mario Vargas Llosa, Joaquim Maria Machado de Assis, Clarice Lispector, and others.

Barry E. Weingarten, Assistant Professor of Spanish. Ph.D., University of Pennsylvania. His teaching and research interests lie in Peninsular studies in general and Modern Spanish Theater in particular. He has written many articles on 19th and 20th Century Spanish authors.

Sylvia G. Carullo, Assistant Professor of Spanish. Ph.D., State University of New York at Buffalo. Her present research deals with the poetry of the 17th century Mexican writer Sor Juana Inés de la Cruz. She has also published articles on Afro-Hispanic literature.

Maximiliano E. Zúñiga, Instructor in Spanish. M.A., West Virginia University. His teaching interests include Spanish language on all levels, culture, civilization, and Spanish American literature. His current research is in 20th century Peruvian prose, particularly the narrative of Alfredo Bryce Echenique.

Beatriz C. Quintero, Part-time Instructor in Spanish. B.A., University of Puerto Rico. She teaches

introductory-level courses in Spanish. Her academic interests are in the theatre of the Spanish Golden Age and contemporary Latin American prose fiction.

Contributing Faculty:

J. Mark Ruhl, Associate Professor of Political Science

Spanish

101-104. **Elementary Spanish** An intensive study of the fundamentals of Spanish grammar, with special attention given to pronunciation and oral expression. Composition and literary and cultural readings. *Please refer to Graduation Requirements (Languages).*

116. **Intermediate Spanish** Review of Spanish syntax. Introduction to conversation and composition through selected cultural and literary readings. *Prerequisite:* 104 or the equivalent.

231, 232. **Spanish Conversation and Composition** Careful attention to grammar and style as seen in short stories and articles and in compositions written on a periodical basis by the students. Advanced practice in the oral aspects of the language based on everyday situations. *Prerequisite: 116 or the equivalent.*

- 241. **Aspects of Spanish Civilization** In-depth study of several aspects of Spanish civilization. Attitudes, values, and mores as manifested in their history and their artistic achievements. Oral and written reports concerning some cultural aspects. *Prerequisite:* 231 or 232 or the equivalent.
- 242. Aspects of Latin American Culture A selective study of important Latin American cultural trends and values from the pre-Columbian period to the present. Emphasis on the Latin American versions of key Western-period terms such as Renaissance, baroque, the Enlightenment, romanticism, and avantgarde approaches and on locally generated movements such as Modernismo, Arielismo, Indigenismo, etc. Some literary selections and artistic works are selectively introduced in order to illustrate the cultural trends under study. *Prerequisite: 231 or 232 or the equivalent.*
- 243. Introduction to Literary Criticism in Spanish An introduction to text analysis, methods, and Spanish terminology of literary criticism. Peninsular and Spanish American texts from different periods are used as primary references. Students are encouraged to apply the concepts learned to concrete texts. *Prerequisite: 241 or 242 or the equivalent, or 231/232.*
- 244. **Survey of Spanish Literature** A chronological study of Peninsular literature from the 12th to the 20th century. Trends and movements will be studied through the reading of representative authors. *Prerequisite: 243 or the equivalent.*
- 245. **Masterpieces of Spanish-American Literature** Reading and discussion of representative works of Spanish-American literature from the colonial period to the present, with an emphasis on the 20th century. *Prerequisite: 243 or the equivalent.*
- 351. **The Spanish Novel** A study of representative works by the most important novelists of Spain beginning with Cervantes and including such 19th and 20th century masters of the genre as Galdós, Baroja, and Cela. *Prerequisite: 243 or 244 or the equivalent. Offered every other year.*
- 352. **Medieval and Renaissance Spanish Literature** A study of the period with emphasis on major works such as *El Poema del Cid, El Conde Lucanor, La*

- Celestina, Lazarillo, Garcilaso and the Mystics. Prerequisite: either 243 or 244 or the equivalent. Offered every other year.
- 361. **The Spanish Theatre** A study of representative plays from the Golden Age to the present, with a particular emphasis on dramatic trends and influences. *Prerequisite: 243 or 244 or the equivalent. Offered every other year.*
- 362. **Contemporary Spanish Literature** A study of representative contemporary works. Special emphasis on the different trends and ideas as reflected in works by pre-Civil War authors. *Prerequisite: 243 or 244 or the equivalent.*
- 372. 20th Century Spanish-American Fiction Selective coverage of outstanding novels and short stories by 20th century Spanish-American writers. Analysis of some works of the 1920s and 1930s; emphasis on post-1940 fiction. Includes works by Borges, Rulfo, Cortázar, Garcia Márquez, among others. Prerequisite: 243 or the equivalent. Offered every other year.
- 381. Topics in Hispanic and Luso-Brazilian Studies Study of significant cultural, literary, and historical topics concerning the Spanish-speaking world. Peninsular and Latin American topics alternate on a yearly basis. Some topics offered in past years were: Latin America as a Colonial Province, Sephardic Culture and Civilization, History and Civilization of Mexico, and History and Civilization of Brazil. Specific topics to be announced before registration. Prerequisite: permission of the instructor. One-half or full course. (Also listed as Portuguese 381.)
- 382. **Seminar in Hispanic Literature** A thorough investigation of major figures or important literary trends in Hispanic literature which were not covered by the majors in previous courses. The majors will work on a semi-independent basis with a particular instructor and will present reports to the seminar and participate in subsequent discussions. Emphasis on methods of literary research. *Prerequisite: 243, a major or minor in Spanish.*

The following courses are offered in Málaga:

200. **Málaga Summer Immersion** A fiveweek course in contemporary Spanish language and

culture offered at the University of Málaga, Málaga, Spain. Students will reside with Spanish families, speak only Spanish during this five-week period, and participate in intensive language and culture classes, special lectures, and field trips arranged by Dickinson in cooperation with the Cursos para Extranjeros of the University of Málaga. Prerequisite: Spanish 116 or equivalent and permission of the department.

251. Language Tutorial Oral practice and written compositions on a variety of topics including the students' first-hand encounters with key aspects of Spanish society. This course functions as an intensive language laboratory on location in the city. Offered only at the Dickinson Study Center in Málaga.

261. Andalusian Society and Culture Distinctive features of the Andalusian cultural tradition and value system against the backdrop of Iberian—especially Castilian—history and culture. Study of Andalucía's Roman, Judeo-Christian, and Arabic roots with emphasis on on-site analysis of local folklore. Offered only at the Dickinson Study Center in Málaga. Offered in the fall semester.

271. **Spanish and Hispanoarab Art** An overview of Spanish art followed by an emphasis on the Hispanoarab art of Andalucía. *Offered only at the Dickinson Study Center in Málaga. Offered in the fall semester.*

371. Literary Analysis of Hispanic Texts An indepth study of texts analyzing poetry, prose, and theater of a specific period or genre; for example—generation of 1927, using critical-methodology. Offered only at the Dickinson Study Center in Målaga.

381. **Topics in Hispanic Studies** Study of significant cultural, literary, and historical topics concerning the Spanish-speaking world. Peninsular and Latin American topics may be offered. Specific topics to be announced. *Offered only at the Dickinson Study Center in Mālaga*.

Major:

Nine courses numbered 200 and above (including 241 or 261, 242, 243, 244, and 245), at least eight of which must have been conducted in the Spanish language. No more than two language skill courses may be applied to the major. (i.e. 200 and 231, language tutorial in Málaga.)

For Majors Intending Off-Campus Study and Transfer Students: Regardless of the amount of transfer credit or off-campus study credit earned, a student majoring in Spanish must complete a minimum of five courses on campus. Of these five, at least two regular courses should be completed during the senior year. The student is responsible for scheduling coursework or independent study which will cover those masterpieces of Spanish and Spanish-American literature which have been specified by the department. A complete list of these masterpieces and the courses which cover them may be obtained from the department.

Minor:

Five courses numbered 200 or above, including 231 or 232, either of which may be waived by special permission of the department.

Portuguese

101-104. **Elementary Portuguese** An intensive study of the fundamentals of Portuguese grammar, with special attention given to pronunciation and oral expression. Composition and literary and cultural readings. Please refer to Graduation Requirements (Languages).

116. **Intermediate Portuguese** Review of Portuguese syntax. Introduction to conversation and composition through selected cultural and literary readings. *Prerequisite: 104 or the equivalent.*

381. Topics in Hispanic and Luso-Brazilian Studies Study of significant cultural, literary, and historical topics concerning the Spanish-speaking world. Peninsular and Latin American topics alternate on a yearly basis. Some topics offered in past years were: Latin America as a Colonial Province, Sephardic Culture and Civilization, History and Civilization of Mexico, and History and Civilization of Brazil. Specific topics to be announced before registration. Prerequisite: permission of the instructor. One-half or full course. (Also listed as Spanish 381.)

In addition to the above offerings, Portuguese is offered on a tutorial basis.

Special Approaches to Study

- · Tutorial Study
- · Independent Study and Research
- · Candidacy for Departmental Honors
- Integrated Independent Study/Research
- Foreign Language Integration Option
- Internships
- · Special Majors

ndependent research and study, internships, special majors, and tutorial study encourage Dickinson students to pursue individual academic interests and allow students with the requisite ability and motivation to undertake more self-directed programs of study under faculty guidance.

Tutorial Study, Independent Study and Research

The following options describe programs of tutorial study, independent study and research possible in any academic area in which faculty have training and in which the student has the approval of the appropriate department or coordinating faculty committee. These general guidelines may vary among individual programs.

Tutorial Study Tutorial study is occasionally approved for students who, by agreement with the instructor, have the need to take a course listed in the catalogue on a one-to-one or limited enrollment basis. Such a need might be justified in the case of a course which is offered only on an alternate year basis or at some other frequency which would not allow for the completion of the student's program. Approved tutorial studies are registered for during the normal add/ drop period in the Office of the Registrar.

Independent Study and Research for Freshmen Freshmen who, on the basis of advanced placement, have qualified for credit in an introductory course (except foreign language courses below 230 and such other courses as may be designated by the departments) and desire to work more extensively at the survey or principles level of a discipline may enroll for a tutorially-directed course or half-course in independent study within the same body of knowledge.

A freshman who wishes to take a second independent study or a course of independent study or research on terms available to sophomores, juniors, and seniors, must petition the Committee on Academic Standards, with supporting statements from the academic adviser and proposed supervisory instructor.

Independent Study for Sophomores, Juniors, and Seniors Independent studies allow a student to pursue an academic interest outside the listed course offerings. The study may include experimental work and reading and may culminate in several short papers, a single paper, or any other project acceptable to the supervising faculty member and the student. The work may be supervised by one instructor or several instructors from one department or several departments. Such interdepartmental studies must be approved beforehand by the Committee on Academic Standards. Sophomores may undertake one study or one independent research course and may, with the support of the student's academic adviser, petition the Committee on Academic Standards for permission to take two independent studies or independent research courses in one semester. Juniors and seniors may undertake two such courses without special approval and may petition the Committee on Academic Standards for additional independent study or research courses. In addition, the student must have a cumulative average of 2.0 or the permission of the Committee on Academic Standards.

Independent Research for Sophomores, Juniors and Seniors Independent research, like independent study, allows a student to pursue an academic interest beyond the listed course offerings, but this pursuit must culminate in an original contribution to a discipline, whether in the form of fully-supported conclusions or in the form of a creative effort. Although supervised by faculty from one department or several departments, the work is to be largely self-initiated and self-directed-an introduction into research and practice in presenting the results of an investigation. Conclusions must be presented for evaluation no later than one (1) month prior to the student's graduation. The program may be elected (maximum credit: four full courses per semester) for the junior year, the senior year, or both. Sophomores may undertake one independent research course per semester unless permission is granted by the Committee on Academic Standards to take two such course credits on the basis of a petition supported by the student's academic adviser. In order to register for the program, special permission is required from the Committee on Academic Standards for students with less than a 3.0 average in the department or departments supervising the independent research. Programs of independent research involving more than two such courses per semester must be approved by the Committee on Academic Standards. Interdepartmental research must be supervised jointly by the respective faculty members and must also be approved by the Committee on Academic Standards.

Candidacy for Departmental Honors Students participating in the independent research program described above shall be eligible to be voted departmental honors on the completion of the program. In assessing each candidate, the departments may conduct comprehensive examinations or may invite outside examiners. If, in the judgment of the department, a candidate meets the standards for graduation with honors, the project shall be so designated.

Integrated Independent Study and/or Independent Research for Juniors and Seniors This provision allows a student, with the guidance of his or her major department and any supporting departments, to plan an entire program either for the last two years of study or for the senior year. The program, which must be approved by the Committee on Academic Standards may combine independent study, independent research, and course participation. Work under the program normally proceeds without grade, but, upon the student's completing the plan, the supervising department will prepare a precise description of the work accomplished and an evaluation of its quality which will become part of the student's permanent record.

Foreign Language Integration Option

A number of courses are designated each semester as carrying the foreign language integration option. These are courses in which students who wish to try their language skills in courses outside the language departments can choose to do some work in the designated foreign language. The amount and type of language work involved (readings from articles, newspapers or books and/or some paper writing) is determined by the professor in conjunction with the student. Foreign language work is tailored to meet the needs and language level of the individual student. Typically, work in a foreign language is substituted for English language materials, so as not to constitute an added responsibility. Successful completion of the foreign language integration option is noted on a student's transcript, thus certifying the student has had extra training in the language. This option is entirely voluntary. Students who register for courses with this option are not required to do work in a foreign language and may take the courses on the regular basis. Evaluation of the foreign language integration work does not affect the student's grade in the course.

Internships

An internship is a special field program integrated with an academic component by which a student may test the practical applications of liberal learning in any of a variety of professional or occupational settings, on or off campus. Through an internship a student has the opportunity to explore the interrelationship between an academic subject and some area where it has practical application or relevance. This experience also provides a way to explore possible career choices while still in college.

Normally open only to juniors and seniors, internships are initiated by the student and must be approved in advance by the internship coordinators. A faculty internship adviser helps the student develop the broader theoretical framework or perspective in which the field work is to be analyzed, assumes overall responsibility for the internship in progress, and reports the grade of Credit or No Credit at its conclusion. Each internship is assigned from one-half to two course credits, based upon the nature and complexity of the integrated internship project. A student may receive a maximum of two internship course credits in a given semester or summer, and normally no more than four in a given academic year. No more than two internship credits may be counted toward a minor. January internships receive a maximum of one-half course credit. Permission for a given student to do more than two internships involves a special approval process beyond the approval of the third internship



itself, so students considering this possibility should begin their planning and consult an internship coordinator very early in the preceding semester.

To apply for an internship a student, after consultation with one of the internship coordinators, a faculty internship adviser, and the intended on-site supervisor, must complete an Internship Agreement Form describing in detail the on-site project and the related theoretical work, the educational objectives of the internship, the student's relevant academic preparation, the bibliography of works to be read before and during the internship, and the evidence that the faculty internship adviser will evaluate to determine the grade. The faculty internship adviser and the on-site supervisor also complete parts of the agreement form in which their respective expectations are delineated. In addition, the student must secure the signature of his/her regular academic adviser(s) and, if the internship is to count towards a major or minor, of the appropriate department chairperson. Completed agreement forms must then be submitted to the internship office for final approval by both coordinators, after which the internship office assumes responsibility for registering the internship.

At the completion of the internship and before credit will be granted, the student must complete and submit to the internship coordinators a Student Internship Evaluation Form, in which the student reviews the original objectives and proposed activities as stated in the Internship Agreement Form, describes how they were achieved or modified in the course of the internship, and evaluates in some detail the practical and theoretical aspects of the experience. Postinternship evaluation forms are also requested from the faculty internship adviser and the on-site supervisor.

Detailed information about internships, advice in planning, and all necessary forms are available in the internship office. Dr. Marjorie Fitzpatrick is the administrative coordinator for the internship program.

Special Majors

Tutorial Departmental Major Some departments may approve superior students as tutorial majors. Such a program differs from independent studies and research in several ways. For one, the student is guided in a program in the component areas of an entire discipline for approximately two years. That program's balance is ensured by prior departmental approval. Secondly, the student is free to take regular courses in the student's major discipline with the approval of the tutor. Normally the student will receive a letter grade for a 600 series course, but the Pass/Fail option is also available under the same restrictions as in standard courses.

The student meets on a regular basis with a tutor to discuss essays and readings dealing with particular problems posed by the tutor. Finally, the student sits for a comprehensive examination, both written and oral, administered by a committee composed of the department and one person outside the department. Normally, at least one-quarter of the student's final semester is given over to preparation for these examinations. One reexamination may be permitted within the calendar year. Students will be graded on the examination as having passed, failed, or passed with departmental honors. Approved students may register for up to four courses per semester under the tutorial rubric.

The Self-Developed Interdisciplinary Major

The Dickinson College faculty represents in its members a diverse set of interests and perspectives that provides a considerable resource for those students who would like to develop a major around concerns that do not fall into traditional disciplinary areas. The option of a self-developed major is available to students who desire a somewhat different field of concentration which, although a recognized field of learning and relevant to the liberal arts, is not substantially addressed by any one department. Recent self-developed majors have included women's studies, medieval studies, environmental science, and black studies.

Because of the special significance of ethnic studies and minority studies to students and faculty alike, students are encouraged to consider these areas for the development of self-developed majors (e.g., Afro-

American studies, Hispanic studies). The knowledge gained from being educated about and in the midst of the diversity of ethnic and minority groups in the world can only broaden the perspective of all those involved in the process.

A student contemplating a self-developed major should prepare a proposal which includes those courses relevant to the topic and seek the written endorsement of four faculty members for the proposed major which shall consist of ten or more courses. The supporting faculty will secure the advice of chairmen of those departments in which the student contemplates course work for concentration.

The student must present this validated proposal to the Committee on Academic Standards for approval by the Subcommittee on the Self-Developed Major. The student in this program will work closely with an appointed adviser. Changes desired in this program will be submitted with the approval of the adviser in written form to the subcommittee for final approval. Under ordinary circumstances, a student accepted in a self-developed major may not apply any of the ten approved courses toward the completion of a departmental major or minor.

Upon the completion of every semester, each student involved in the self-developed major will submit to the subcommittee (with a copy to the adviser) an evaluation statement of progress and commitment to the major as a whole, experience in individual courses, and work with the adviser. The adviser will submit to the subcommittee, and to the student, an evaluation describing the student's progress, achievement, and commitment.

At the conclusion of the student's work the transcript will describe the major as follows: Self-Developed Major: (Title).

Study Abroad

- International Education
- The Dickinson Center for European Studies in Bologna
- The Dickinson College in Bremen Program
- The Dickinson Humanities Program in England
- The Dickinson College Program in Japan
- The Dickinson Semester/Year Program in Málaga
- The Dickinson College Study Center in Toulouse
- Language Immersion Programs
- · Dickinson Summer Abroad Programs
- Dickinson-Affiliated Programs

International Education

In an era characterized by increasing global interdependence, the College recognizes its responsibility to maximize global perspectives in its educational programs so that students may gain the international understanding necessary to be informed citizens and world leaders. In its on-campus academic offerings, courses with an international focus are offered in several departments. In addition, global perspectives and intercultural sensitivities are stressed in other ways, including the comparative civilizations program, the program in foreign languages with its required level of proficiency and emphases on literature and culture, double majors which combine language skills with study in other disciplines, and interdisciplinary area study programs in Western Europe, East Asia, Latin America, and the Soviet Union.

The College also encourages its students to investigate the appropriateness of study abroad to their educational objectives. When carefully planned in advance and integrated with a student's on-campus academic program, study abroad can be an integral part of the liberal arts experience, providing cultural enrichment, personal development, and intellectual challenge. Study abroad is coordinated through the Office of Off-Campus Studies and may take place during an academic year, a semester, a January term, or a summer term. More than 35 percent of all recent graduating Dickinson seniors have studied off-campus, over three-quarters of them abroad.

The following pages present study-abroad opportunities offered by Dickinson or with which the College

is formally associated. Many other high-quality opportunities are also available; information can be obtained in the Office of Off-Campus Studies, located in Cook International House.

Dickinson-Sponsored Programs

The Dickinson Center for European Studies in Bologna was established in 1965. Students interested in a junior year abroad to study European politics, history, economics, and international affairs may apply for admission to this program in Italy. Supervised by a resident director drawn from the College's faculty, it includes courses in the following areas: European History and Politics, International Studies, History of European Political and Social Thought, International Economics, Renaissance Art, History of Science, and Italian Language. A unique offering is the Bologna Practicum, an interdisciplinary seminar. (See Interdisciplinary Studies in the courses of study section.) Courses are taught in English by the Dickinson director and faculty members from Italian universities and the Johns Hopkins School of Advanced International Studies. Opportunities are also available for independent study with the Dickinson and Johns Hopkins instructors.

Twenty-five students are selected each year for study at the Dickinson Center. No particular major is a prerequisite. Participants who have not had one semester of Italian previously will be required to take Elementary Italian in Bologna. Financial aid, including work-study opportunities, may be applied for through the customary procedures followed on campus.

The Dickinson College in Bremen Program is open to students from all areas of the liberal arts who have a good mastery of the German language. This academic year program at the University of Bremen in the Federal Republic of Germany is supervised by a resident director from the Bremen University faculty who serves as academic adviser to the students, supervises their orientation to their year of study in Bremen, and arranges for special individualized tutoring. Students enroll in one required Dickinson course, Comparative Cultures: U.S.A.-Germany, and take the rest of their courses at the University of Bremen. All course work is conducted in German. Participants are fully integrated into university life at Bremen and have use of all university facilities.



Students apply only for the academic year in Bremen. Financial aid may be applied for through the customary procedures followed on campus.

The Dickinson Humanities Program In England, in cooperation with the University of East Anglia, Norwich, offers a full academic year abroad from early September to late June for students desiring to pursue interdisciplinary studies focusing primarily upon the humanities. Using the exceptional resources of the cities of London and Norwich, the program begins in London with an intensive onemonth seminar taught by the Resident Director. Students are introduced to the city's distinctively British as well as its international culture, and they study how literature, the fine arts, drama, and music can be better understood by considering the sensibilities of a creator working in the socio-cultural context of a particular period of London's history. Moving to Norwich in early October, students continue their special study of the humanities through a second seminar-style course

which explores the evolution of architecture, art, drama, history, literature, and music in the English countryside and provincial city from Roman times to the present. The remainder of the students' course work is taken at the University of East Anglia where they enroll in a wide variety of courses in literature, drama, history of art, history, music, archaeology, classical studies, philosophy, as well as several of the modern languages.

In London, students are housed in hostels. In Norwich they live in university residence halls in order to integrate themselves fully into British university life, including a full range of cocurricular and extracurricular activities. Financial aid for Dickinson students is available through the usual college channels.

The Dickinson College Program in Japan is offered in cooperation with the Center for Japanese Studies at Nanzan University in Nagoya, Japan. Participants normally have previous study of Japanese language and are enrolled in the Center's Japanese

language courses and in courses on Japanese culture and civilization taught in English in a variety of disciplines, including history, literature, economics, political science, international studies, and fine arts. Participants are normally housed with Japanese families.

Students may apply for either year-long or fall semester study at Nanzan. Financial aid may be applied for through the customary procedures followed on campus.

The Dickinson Semester/Year Program in Málaga attracts students interested in all areas of the liberal arts who have a good mastery of Spanish, normally indicated by the completion of Spanish 231. The program is supervised by a resident director from the Carlisle Dickinson campus who serves as an academic adviser to the students, supervising their orientation and program. The curriculum includes courses taught by the Dickinson director, courses organized and taught by faculty from the University of Málaga specially for the Dickinson program, (see specific course offerings listed under the Spanish department) and regular courses at the Facultad del Filosofia v Letras of the University of Málaga. All course work is in Spanish. Students live and take all meals in local Spanish residences.

Students may apply for either year-long or fall semester study in Málaga. Financial aid, including work-study opportunities, may be applied for through the customary procedures followed on campus.

The Dickinson College Study Center in Toulouse draws students from all areas of the liberal arts who have a good mastery of the French language and have completed French 233 (Introduction to French Literature), or its equivalent. The program is supervised by a resident director drawn from the College's faculty and offers integrated study in French language, literature and society, intercultural communication and fine arts. (See specific course offerings listed under the French department offerings.) In addition, students are able to enroll directly in courses offered at the University of Toulouse in subjects in the humanities, social sciences, and mathematics. Students also may pursue internships in both the public and private sectors in the Toulouse area. All course work is conducted in French. Participants are housed with French families in the Toulouse area.

Students apply for the academic year, or, in exceptional cases, for the spring semester only. Financial aid, including work-study opportunities, may be applied for through the customary procedures followed on campus.

Language Immersion Programs With support from the National Endowment for the Humanities, Dickinson College initiated in 1984 a series of summer language immersion programs that are offered at the following locations: Bologna, Italy; Bremen, Germany; Málaga, Spain; Moscow, U.S.S.R.; and Toulouse, France. Directed by faculty members from the College's modern language departments, each program is designed to encourage students who have completed the 116 level to augment their required foreign language study by spending a month in a country in which that language is spoken. In addition to increasing their oral proficiency through sustained use of the foreign language both in and out of the classroom throughout their stay, students receive a firsthand introduction to the country's culture through formal instruction and actual day-to-day experience. The exact format varies slightly from program to program to take account of the unique character of each culture, language, and location, and the ways in which these elements interact. A parallel but somewhat different classical language program is held in Rome at the Intercollegiate Center for Classical Studies and in Naples at the Villa Vergiliana in alternate summers. The program aims to train students satisfying the College's language requirement in Latin to appreciate the classical world.

Dickinson Summer Abroad Programs

Dickinson regularly conducts three foreign study programs during the summer term, two in Great Britain, and one in Spain or Latin America. Financial assistance is available.

The Roman Britain Program, under the direction of the classics department, concentrates upon the archaeological excavation of a newly-opened Roman site at Stanwick. Eight miles north of Richmond, between the Rivers Tees and Swale, the ancient earthwork complex known as Stanwick Camp consists of an area of over 700 acres defended by massive ramparts of

earth and stone, still standing to a height of over 15 feet. The site is one of the most impressive and extensive in England; almost two thousand years ago it was a very important center, and one of the chief places of the pre-Roman people of northern Britain. During the six-week program, students participate in a training dig designed to teach persons without previous experience the techniques of field archaeology. Dickinson conducts this excavation in conjunction with the University of Durham; the dig is supported by funding from The National Geographic Society.

The Summer Semester in England program offers students with an interest in fine arts, English history and culture, music, and English theatre the opportunity to pursue study in England. The program is centered in London and offers courses which draw upon the libraries, museums, galleries, architecture, and cultural life of that city on a daily basis. Students will learn to use the many resources of London to educate themselves. The summer semester is divided into two sessions of two inter-related courses each, and students may take one or both sessions.

The Field School in Cultural Anthropology trains the student in ethnographic technique and analysis. In either Latin America or Spain, students live with local residents for five-six weeks while they study through active fieldwork particular aspects of local life and culture. Prerequisite: Anthropology 101, 211, or permission of the instructor.

Dickinson-Affiliated Programs

The Institute of European/Asian Studies. The Institute of European/Asian Studies offers study programs for juniors and seniors at eight leading European university centers (Durham, Freiburg, London, Madrid, Milan, Nantes, Paris, Vienna) as well as at two Asian centers (Singapore and Nagoya, Japan.) Each program offers unique perspectives and opportunities utilizing the particular academic and cultural resources of its location. Under the supervision of a permanent resident director, each center offers its own particular academic programs, experienced academic advisers accustomed to dealing with the difficulties in integrating a student's foreign study program with that of the home institution, and a full range of supportive services: housing, university registration, per-

sonal counseling, medical care, student activities, records, and the like.

The Institute also provides orientation programs including intensive language study where appropriate. Students study under distinguished professors from the host country. The Freiburg, London, Madrid, Milan, Nantes, Paris, and Vienna centers offer a core of courses taught within the Institute by university professors and, except for London, also enable qualified students to enroll in regular courses within the faculties of the universities themselves. At Durham, students enroll as fully integrated students of the university, and the Institute provides tutorial assistance supplementing their university course work whenever appropriate. Enrollment in Nagoya is in the Center for Japanese Studies at Nanzan University. In Singapore students enroll at the National University of Singapore, an English-language university. Students are recommended for admission by the College. Limited financial assistance is offered.

The Intercollegiate Center for Classical Studies in Rome. Majors in Latin or Greek, or other students especially interested in classical antiquity, can spend one or two semesters at the Intercollegiate Center for Classical Studies in Rome. This center features the combination of carefully chosen master teachers from American colleges and universities with the irreplaceable glory of the sites of the classical past. Dickinson students are eligible for scholarships to the center. The Dickinson classics department also manages the Christopher Lee Roberts Scholarship which may be used for a semester at the center. Field trips from the center in Rome are part of every semester's work, including the Etruscan north and the Naples area. At the same time, in the middle of Rome itself, classes in Roman archaeology/history, art history, Italian, Latin language and literature, and Greek language allow the student to develop a full program of study.

The International Student Exchange Program.

The International Student Exchange Program (ISEP) is a fully reciprocal student exchange scheme which facilitates and encourages the regular exchange of students on a one-to-one basis between participating colleges and universities in approximately 34 countries in Africa, Asia, Australia, Europe, Latin America, and North and South America. Through ISEP, Dickinson students pay tuition and fees, room and board to Dick-



inson and exchange places for one academic semester or year with students from participating institutions outside the U.S. who likewise have covered the cost of their tuition and other expenses. This exchange opportunity allows Dickinson students to study outside their country for the same cost that they would pay here. They remain registered at Dickinson and may apply whatever financial aid they normally receive toward the year abroad.

Students interested in ISEP are screened and selected by Dickinson. They must have proven their ability to produce high-level academic work and be proficient in the language of instruction of the institution for which they are applying. Applicants from all academic disciplines are considered. ISEP students are fully integrated, academically and socially, at the host college or university abroad; they take the same courses and examinations as all other students at that institution. Housing is guaranteed, either in residence halls or in accommodations nearby.

Other Study-Abroad Programs Other studyabroad programs are available throughout the world. Students may be able to enroll directly in a foreign university, in specialized courses and institutes for foreigners at leading universities abroad, in internships overseas, or in American college-sponsored programs designed to meet the needs of American students who wish to pursue their educational interests in another part of the world. During the past several years, Dickinson students have studied for an academic year, a semester, or a summer in Argentina, Australia, Austria, Belgium, Brazil, Cameroon, Canada, Chile, Colombia, Costa Rica, Denmark, Egypt, England, Finland, France, Ghana, Greece, Hong Kong, India, Ireland, Israel, Italy, Japan, Korea, Mexico, Nepal, the Netherlands, People's Republic of China, Peru, Scotland, Senegal, Singapore, South Africa, the Soviet Union, Spain, Sweden, Switzerland, Wales, West Germany, and Yugoslavia. The Office of Off-Campus Studies has more information on programs and procedures.

Dickinson College Study Abroad 169

Special Programs

- · Off-Campus Study in the United States
- Appalachian Semester
- South Asian Studies
- · Binary Engineering
- · Consortium Exchange
- Marine Studies Program
- Washington Semester

Off-Campus Study in the United States

An academic year, semester, summer, or January term of study at a specialized program or other college or university in the United States may be appropriate for some students. Like study abroad, this form of off-campus study must be carefully planned and integrated with the student's on-campus academic program. Several institutions offer specialized unusual learning opportunities and environments unavailable at Dickinson, utilizing unique resources which cannot be duplicated within the traditional on-campus classroom setting. Examples are programs which focus on topics and areas such as marine biology, Appalachia, the United Nations, or American Maritime studies.

Dickinson students have also taken advantage of guest student programs at major colleges and universities which permit students to enroll for a semester or the academic year in regular curricular offerings of the institution which are unavailable on the Dickinson campus. Dickinson students have recently studied elsewhere in the following academic areas: architecture, black studies, East-West comparative cultures, journalism, public communications, urban studies, women studies, archaeology, aviation, urban planning, business, drama, ecology, studio art, and law.

The following pages present off-campus learning opportunities in the United States with which Dickinson is formally associated. Information on these and other specialized programs of study is available in the Office of Off-Campus Studies, located in Cook International House.

The Appalachian Semester Program The Appalachian Program is a fall semester experience located in the heart of Appalachia at Union College, Barbourville, Kentucky. Offered every fall semester, it is open



to juniors and seniors interested in studying the Appalachian region—its strengths, problems, and challenges. The program is strongly interdisciplinary in nature and includes three courses plus credit for field work in a variety of disciplines. The Appalachian Semester Program is open to students of all majors and is particularly recommended for undergraduates who want to explore in depth the Appalachian region and its people and also those students who plan to enter a variety of service-oriented occupations.

South Asian Studies By informal arrangement with the University of Pennsylvania, well-qualified, highly motivated Dickinson students may elect to spend a summer, a semester, or a full academic year (normally the senior year) studying in the Department of South Asian Studies at the University of Pennsylvania. Such election shall be contingent upon recommendation by the student's major department at Dickinson, approval of the director of off-campus studies, and acceptance by the department at the University of Pennsylvania. Seniors completing the requirements for the Bachelor of Arts degree at Dickinson who are in residence at the University of Pennsylvania during the entire senior year are exempt from the Dickinson senior residence requirements.

A student planning such a senior year program normally should expect to enroll for intensive language study during the summer prior to the senior year at the University of Pennsylvania. If recommended for graduate study in the same field by the department in which the student is enrolled, the student should anticipate further intensive language study during the summer immediately following completion of the senior year.

The Binary Engineering Program Dickinson College offers a Binary Engineering Program that combines advantages of the small liberal arts college with training to be secured at a large urban engineering school. Cooperating with Dickinson College in this program are the engineering schools at the University of Pennsylvania, Rensselaer Polytechnic Institute, and the Case Institute of Technology. The student spends the first three years at Dickinson and the final two at the engineering school, leading to a B.S. degree from both institutions.

The liberal arts-engineering combination is particularly appealing to those freshmen who like the liberal arts and are not yet willing to commit themselves completely to a strict engineering curriculum. The Dickinson student receives a generous background in pure science along with course offerings in the humanities and the social sciences.

Candidates for the Binary Engineering Program should inform the director of admissions of Dickinson College that they wish to apply for this program so that they may be assigned to the engineering student adviser. The student in the freshman year should take Physics 131, 132 and Mathematics 161, 162. Students interested in this program should request from the Dickinson admissions office a special booklet which describes the Binary Engineering Program in greater detail and gives suggested course schedules.

The Consortium Exchange Program Dickinson, Franklin and Marshall, and Gettysburg Colleges form the Central Pennsylvania Consortium. One of the advantages of this educational cooperative venture is that students have the opportunity to take courses at any member college. This program of exchange is encouraged because it allows for greater flexibility in a student's educational program.

The Office of Off-Campus Studies coordinates consortium exchange programs for students. The appro-

priate forms, catalogs, and other information are available there. The application procedure is rather simple with only an application form and a course approval form necessary. Applications should be submitted to that office by May 1 for a fall semester, and December 1 for a spring semester.

Any Dickinson student who is approved by this College for study at Franklin and Marshall or Gettysburg College, may take a course, several courses, a full semester, or a full year at the other college. Except for summer programs at the other colleges, the normal tuition fee is paid to Dickinson. No fees are paid to the other college except residence fees where appropriate. Grades, in addition to course credit, are transferred to Dickinson. Courses of unusual interest to Dickinson students offered at the other CPC schools include those listed under the following programs:

Gettysburg

American History
Area Studies (international)
Civil War Studies
Medieval and Renaissance Studies
Peace, War, and World Order Studies

Franklin and Marshall

American Studies
Animal Behavior
Anthropology
Art
Astronomy
Biopsychology
Dance
Dramatic Arts
Geology
History and Philosophy of Science
Linguistics

The Marine Studies Program The Marine Studies Program is an interdisciplinary one-year experience which encompasses all aspects of learning for the liberally educated scientist. The curriculum includes traditional classroom lectures, intensive field study, and independent research. In addition, the program offers the opportunity for science students to observe and examine intensely a part of nature from four points of view (biological, chemical, geological, and physical) to understand better the interactions, the processes, and patterns in a distinct natural system.

Offered biannually to junior and senior science majors by the biology and geology and environmental science departments, the program consists of three parts: an oceanography survey course taken on campus in the fall semester; a three-week field course to study the environments and organisms of the coral reefs of the Florida Keys during the January semester break; and a spring semester independent project of the student's choice which is begun during the field study experience. For more information and prerequisites consult the chairman, Department of Geology.

The Washington Semester Programs In cooperation with the American University and an allied group of colleges and universities, Dickinson offers to a few high-ranking students (usually juniors) the opportunity to participate in one of several academic programs sponsored by the American University in Washington, D.C.

The one-semester opportunities are American national government and politics, American foreign policy, economic policy, justice, journalism, and peace and conflict resolution.

The usual course of study includes a seminar in which the student has an opportunity to listen to and question government officials from all levels, Supreme Court justices to lower-level bureaucrats. In addition, the program requires a substantial independent research paper. There is also the opportunity to serve an internship in the office on Capitol Hill, such as an agency, a lobby organization, or another course-related office. As an alternative to such an internship, the student may elect a regular course offered by the university.

Dickinson students are eligible to participate in the fall semester. They should consult with the Dickinson coordinator early in their academic career to receive further details on the programs and on courses which may be required as prerequisite to admission.

Academic Resources

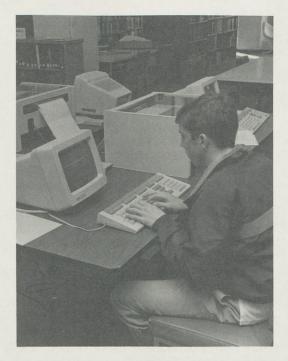
- Library
- Computer Facilities
- The Writing Program
- The Writing Center
- Media Services
- Fine Arts Gallery
- Observatory
- Planetarium

The Boyd Lee Spahr Library

The primary mission of the library is to support the liberal arts program of Dickinson College. To this end, the librarians have a twofold responsibility: to build and organize a library collection excellent in quality and quantity and to provide the best possible service to Dickinson faculty and students as they engage in the teaching/learning process.

The Boyd Lee Spahr Library, built in 1967, houses a collection of over 450,000 volumes, including 120,000 government documents, 1,500 periodical subscriptions, 7,500 sound recordings, 150 videotapes, and 140,000 microforms. Open during the academic term for 103 hours a week, the library provides seating for 645, including honors carrels for students pursuing independent study. Stack areas with study spaces interspersed are located on the upper and lower levels. Reference and audiovisual areas are on the first floor. The Alexander Sharp Room on the first floor and the Alvah A. Wallace Lounge on the second floor provide attractive, comfortable study areas as well. The Morris Room on the second floor houses the library's Special Collections, its rare books, manuscripts, and the College Archives. The Morris Room serves as a laboratory for students in a variety of courses with research projects involving primary sources.

The services of the library are many and varied. In order to enable students to find the materials they need and to use them effectively, instruction in library use is a primary concern and is provided upon request in the library and in many classes. Librarians provide assistance at the reference desk every weekday, Sundays, and most evenings. The Interlibrary Loan Service, provided through a computer network, provides



access to library collections nationwide. The audiovisual service provides space and equipment for listening to the record and cassette collection and for viewing and printing copies of the extensive microform collection. Two photocopiers are available for student use on the first floor and a late-night study in the basement is open during exam time. The data base search service, offering computer searching of many thousands of journals, government documents, and other printed materials, is available to faculty and to students doing honors and independent study.

In the spring of 1987 students and faculty began using AutoCat, the college's automated catalog, to access the library's holdings. Developed by a team of librarians and computer center staff at Dickinson, the system is designed specifically to meet the needs of undergraduates engaged in the study of the liberal arts. Containing bibliographic records for 99 percent of the library's books, scores and sound recordings, the system is available from more than a dozen terminals in the library and nearly 200 terminals and micros all over campus. The system, easy to learn and use, not only offers greatly expanded access to materials, but is also designed to encourage students to use the research process itself as a tool for improving the quality of their thinking on any given topic.

The library is a member of OCLC, Online Computer Library Center, Inc.; Palinet, the Pennsylvania Library Network; and ACLCP, the Area College Library Cooperative Program, all of which enhance the library's ability to provide access to the universe of information available to and needed by undergraduate students today.

Computer Facilities

Dickinson's faculty and students make extensive use of computers for word processing, statistical analysis, electronic mail, programming, and searching the online catalogue of the library. There are about 300 microcomputers (primarily IBM-compatible and Apple Macintosh) and 70 terminals linked to a central DEC VAX 8600 and a separate computer system for administrative computing. Nearly 70 of these microcomputers and 25 terminals are available for student use in three public microcomputer rooms and three public terminal rooms. Another 76 micros and 17 terminals are available for students in physics, mathematical sciences, psychology, and other specific departments. The mathematical sciences department also has a microVAX and a Sun WorkStation, with a variety of programming languages.

Software available includes word processing software such as WordPerfect, statistical software such as SPSSx and MINITAB, programming languages such as Pascal, Fortran, Basic, etc. Dickinson's electronic mail software allows communication between virtually all members of the campus community, and, through the BITNET network, with those at other colleges and universities. Its library catalog software on the VAX allows users to search through the library holdings from almost any microcomputer or terminal on campus.

Use of the college's computing facilities is free for all students and staff. All incoming students are automatically assigned VAX computer accounts and are offered an introduction to the college's computing facilities, to electronic mail, and to word processing as part of orientation. Instruction on using various computers and software packages is available in short seminars and in-class sessions. Student consultants are available in microcomputer rooms. Handouts, manuals, and newsletters are also available in the computer rooms.

Dickinson participates in several purchase plans allowing students and staff to purchase computers, software, and accessories at substantial discounts. Over 15 percent of students have their own microcomputers; those living in most on-campus housing can connect these, at no cost, to the central VAX computer to allow VAX computing from their room.

The computer services offices and the VAX are located in South College. Those wishing additional information about academic computing should contact the coordinator of academic computing.

The Writing Program

Dickinson's growing writing program insures that students graduate with the writing skills they need to be productive citizens in personal, professional, and civic endeavors. The program includes four basic pedagogical components: the freshman seminars, writing courses in the English department (see English Department), Writing Enriched courses across the curriculum and the Writing Center. In the freshman seminars, students are given extensive practice and instruction in basic expository writing which will serve them well during the rest of their academic career. They will also take Writing Enriched courses all four years at Dickinson and in almost every department. These courses emphasize mid-process feedback so that students have a chance to make rhetorical and stylistic improvements in their work while it is still in the drafting stage.

Students can also put their writing skills to use in a variety of cocurricular activities including the college newspaper, *The Dickinsonian*; the literary magazine, *The Dickinson Review*, published by the Belles Lettres Society; and the yearbook, *Microcosm*.

The Writing Center

Centrally located in the HUB, the Writing Center is a popular place where students can write or study in attractive and comfortable surroundings. Next door to a student computer room, the Writing Center combines the latest in computer assisted writing technology with a one-on-one approach to writing instruction. Peer consultants are available to help with academic papers, lab reports, letters of application, and other college-related writing. Trained and supervised by faculty, consultants offer nonthreatening individual instruction in a range of writing skills from organization of ideas to punctuation. Closely linked to freshman seminars, the center provides special sup-

port for freshman who are in the process of acclimating themselves to the demands of college writing, but it is also used extensively by upper and lower classmen of all majors.

The Instructional Media Center

The Instructional Media Center, located in Bosler Hall, is home to a campus organization that supports teaching. Services available at the center include the making and duplicating of cassette tapes, ordering and previewing of films and videotapes, slide making, video production, mounting of photos and posters, the loan of equipment, help using audio-visual materials, and a variety of other, less common services.

The center supports the language laboratory, which is used by all modern languages. The lab is provided with up-to-date equipment, manufactured by Tandberg.

The center also houses the College's videotape library, and provides viewing facilities for students and faculty.

Beginning in 1984, the center has worked extensively with satellite communications. There are now seven receiving systems which allow students and faculty to watch live television from around the world. Receiving facilities are being extended into dormitories.

The production and editing of videotapes is another center task. Each year, students from a variety of disciplines help generate scripts, do camera work, act as talent, edit, and help generate computer graphics for tapes used by the faculty.

The Trout Gallery

The Trout Gallery is a bi-level exhibition facility located in the Emil R. Weiss Center for the Arts. Along with housing the College's permanent collections of art—which range in time from Classical Greece to the 20th Century—the Trout Gallery maintains a varied and frequently changing exhibition schedule of avant-garde as well as historically important works of art. The Trout Gallery is, at once, an educational branch of the College and a fine arts museum for the Carlisle/Greater-Harrisburg area. Its public lectures, symposia, and educational programming include an active community education and outreach project for area school children, senior citizens, and others.

The gallery is used directly as a teaching aid for studio, art history, and classical archaeology courses. Recent programs have included an exhibition of Etruscan pottery in conjunction with an archaeology course offered in the classical studies department and an exhibition of symbolist art in conjunction with a course and international symposium on symbolist art and literature.

Advanced fine arts students have also been afforded the yearly opportunity to curate an exhibition of objects from the College's collections. Furthermore, students of the studio program mount a juried show of their work each spring. Internships in the gallery are also offered to superior fine arts majors during their senior year. The gallery thereby offers the unusual opportunity for undergraduates to undertake research and have direct contact with original works of art.

Observatory

The Bonisteel-Yeagley Multiple Telescope Observatory is housed in Althouse Science Hall. The Observatory, equipped with a 14-inch Celestron and an assortment of other telescopes, is extensively used in introductory courses. Recent observatory projects have included the design and construction of a radio telescope, observation of variable stars, public observing sessions for Comet Halley, and astrophotography of the moon, planets, stars, nebulae, and galaxies.

Planetarium

The Roscoe O. Bonisteel Planetarium is housed in Tome Scientific Building. Planetarium programs are produced with substantial student participation for the college community, local schools, and the general public. Recent shows included programs commemorating the birth of Albert Einstein 100 years ago; exploring the connection of Mayan civilization with the heavens; celebrating our first steps into space; celebrating the return of Comet Halley; and a variety of programs summarizing recent astronomical developments such as planetary probes exploring the solar system. Typically, total attendance at the 20 to 40 shows each year is over a thousand people.

Academic Policies and Procedures

Information for Students Who are Enrolled for a Dickinson Degree

Enrollment and Registration New students plan their course schedules with a faculty adviser assigned during the orientation period of their first semester. During each subsequent semester, students plan their course schedules with their adviser during a week of preregistration which occurs in November for the spring semester and in April for the fall semester. Registration takes place the day before the start of regular classes each semester. Freshman seminars begin during the orientation period and are assigned on the basis of a preference questionnaire submitted during the summer.

Students must participate in the one-day registration. Even if their schedules were complete as a result of preregistration, students must confirm their course selection at registration. Students who must be absent from registration should notify the registrar's office in advance. Otherwise, preregistered courses will be cancelled from their schedule.

All college tuition and fees must be paid prior to the student's registration. A non-refundable deposit of \$300 is due prior to preregistration each semester and is applied to the next semester's costs.

Course Load and Credit A full-time course load is between three and five and a half courses per semester. A typical schedule is four courses each semester, although students must schedule two semesters of five courses to complete the graduation requirement of 34 courses in eight semesters. Students who desire to carry fewer than three courses must receive permission to be part-time from the registrar. To take more than five and a half courses a student must petition the committee on academic standards through the Office of the Associate Dean of the College.

Each course, unless otherwise noted in the course description, is equivalent to four semester hours. Credit for courses is based on the assumption that at

least three hours of study accompany each period of recitation or lecture. Half courses exist in only a few departments and may meet either for only half the semester or on a half-time basis for the entire semester. Physical education courses and some military science courses carry no academic course credit.

Changes in Course Schedules Students may make changes in their course registration during the two weeks (in calendar days) following registration. No change in registration is official until an add/drop form signed by the student's adviser and the instructor, when required, is filed in the registrar's office. Starting a course after the first full week of classes is usually not advisable. Changes to or from the pass/fail option and in the use of the audit status require an add/drop form.

Changes in Course Level Certain courses in the languages, sciences, and mathematics are offered at several levels. Students who find themselves enrolled at an inappropriate level in these courses may change levels with the consent of the instructor(s) and the adviser during an additional period of approximately two and a half weeks. (See college calendar for exact date.)

Auditing Courses A student may attend a course without credit by registering to audit the course. The permission of both the instructor and the student's adviser is required. Audit registration occurs during the course-change period. A student who has received credit for a course may retake the same course on an audit basis. Students who are enrolled for three or more courses may audit without an additional fee. The instructor stipulates the requirements of the course for all auditors early in the semester. Courses taken as audits do not appear on a student's transcript unless the instructor authorizes such an entry at the end of the semester.

Late Changes in Course Schedule Add/drop and change-in-level deadlines are significant points in the semester beyond which any change in schedule affects academic performance. For this reason, students who want to make additions or changes in the level of their registration after these deadlines must make their request by petitioning the committee on academic standards through the associate dean of the college. A stu-

dent may withdraw from courses until 15 days after Roll Call of each semester. After this period, withdrawal will require a full review before the standards committee. Withdrawal from a course will be indicated by the entry of a "W" grade in the student's record. The option to withdraw from a course and the use of "W" grades without prior review and approval by the Committee on Academic Standards is limited to two courses during a student's Dickinson career. Withdrawals involving a change from full-time to part-time status will be accepted only if the change of status has received prior approval by the registrar. A student may petition the standards committee to drop a course from the record only when, through no fault of the student, no substantial participation in the course has occurred.

Grading Faculty report an evaluation of student performance twice each semester. At mid-semester (Roll Call), the following grades are reported for all students: "S" indicating satisfactory achievement to date (work of "C" quality or above), "U" indicating unsatisfactory achievement (work of "C-" or below), "I" indicating incomplete work outstanding, and "NE" indicating no evaluation made by the faculty member (applicable to an entire course or section). These roll call grades are sent to students, advisers, parents, or guardians and serve as a useful benchmark for progress; however, they do not become part of the student's permanent record. At the end of each semester final grades are reported which become part of the student's permanent record. Once a grade has been reported to the registrar's office, it may not be changed unless the change has been requested by the instructor and approved by the dean of the college. Students who think that a final grade may be inaccurate should begin by contacting the professor as soon as possible but in no case later than the end of the semester following the course in question.

Most coursework, independent study, and independent research work are graded on an A through F grading scale incorporating pluses and minuses. A student's cumulative average is based on letter grades received in Dickinson courses and at other colleges in the Central Pennsylvania Consortium (Franklin and Marshall, Gettysburg). Two other grading options, pass/fail and credit/no credit, exist and are explained below.



A through F Grading: All courses are offered for a letter grade unless otherwise listed in the catalogue or in the registration booklet. The letter grades reflect the achievement of Dickinson students in the following manner: A, exceptionally high level of achievement; B, substantial level of achievement; C, satisfactory level of achievement, the minimum average grade required for graduation; D, minimal level of achievement required to receive course credit; F, unacceptable level of achievement. Plus (+) and minus (-) are gradations of the A to D scale.

A student's cumulative average is based on the numerical value assigned to letter grades:

icricar	varue	assigned	to ictter	810
A			4.0	00
A-			3.6	57
B+			3.3	33
В			3.0	00
B-			2.6	57
C+			2.3	33
C			2.0	00
C-			1.6	57
D+			1.3	33
D			1.0	00
D-			0.6	57
F			0.0	00

Pass/Fail Grading: The pass/fail grading system is an option intended to encourage students to enroll in coursework containing subject matter or approaches unfamiliar to them and for which they do not wish a letter grade evaluation. This option is available on a limited basis to students after the first semester of their freshman year.

Under this system, "pass" is defined as work of a quality earning a grade of at least "C" and "fail" is defined as work of a quality earning a grade of "C-" or below unless the instructor indicates a different criterion for the grade of "pass." Taking a course on the pass/fail basis requires approval of the instructor. It is the responsibility of each individual instructor to indicate at the beginning of the course the standards for passing and failing work in that course. Some departments may prohibit use of the pass/fail option in specific courses and, normally, pass/fail work should not be included among courses taken for the major or minor program requirements. In courses numbered 300 and above, pass/fail may be taken by permission of the instructor only. Courses taught on the credit/no credit system may not be taken on a pass/fail basis. Students may take no more than one course on a pass/fail basis each semester and no more than a total of four pass/ fail courses among the 34 required for graduation.

Changes to or from a pass/fail grading basis must be made within the two weeks (14 calendar days) following registration.

Credit/No Credit Grading: Credit/no credit grading, in contrast to the pass/fail system, is not the student's option. Each semester a few courses are offered on the credit/no credit basis at the request of the instructors and with the approval of the Committee on Academic Standards. All students registering for a course offered for credit/no credit will be evaluated on that basis. Mastery of the course's objectives is considered a satisfactory completion of the course and results in a grade of "credit." Failure in the course results in a grade of "no credit." All internships are graded on a credit/no credit basis. As with the pass/fail system, neither grade results in a change to the student's cumulative average. The option to enroll in credit/no credit courses is open to all students including first-semester freshmen (except internships, normally limited to juniors and seniors) with no maximum number of credit/no credit enrollments.

Incomplete Grades: A grade of "incomplete" may be reported only in cases in which illness or other serious emergency has prevented the student from completing the work for the marking period. No incomplete is in effect until a form has been filed with the registrar which states the reasons under which it has been granted, contains an evaluation of the student's work to the date of the incomplete, and is signed by both student and instructor. An incomplete may not be reported because of negligence or procrastination on the part of the student. In addition, this temporary grade may be reported only if the student has done satisfactory work in the completed portion of the course. An incomplete grade must be cleared before the roll call of the following semester unless an exception is granted by the Committee on Academic Standards. In every case, the incomplete must be cleared before the end of the second semester following. If an incomplete has not been cleared within stipulated time limits, the appropriate grade indicating a lack of satisfactory completion will be recorded.

Grades in Year Courses: To be admitted to the second semester of a year course (a hyphenated or an asterisk course) the student must have attained a passing grade in the work of the first semester. Students

who do not pass 101 language courses and 113 music courses will receive failing grades.

Course Failure: A letter grade of "F," a "fail" under the pass/fail system, or a "no credit" under the credit/ no credit system are all evaluations expressing failure in a course. The letter grade of "F" results in a reduction of the cumulative average, while "fail" and "no credit" do not change the average. A failed course may be retaken for credit. In the case of letter-graded courses, both the original grade and the new grade are calculated in the average. All failing grades continue to appear on the student's academic record regardless of course repetition.

A final semester senior who does not receive credit for a course only because of a failure in a final examination may apply for one reexamination in each such course, provided the failure is not due to dishonesty. After successful reexamination, a new course grade may be recorded which will be no higher than the minimum passing grade in the applicable grading system. If a reexamination is allowed it shall be conducted by a committee appointed by the chairman of the department in which the failure occurred and shall be conducted within 10 days of the date of the original examination, except when an extension is granted by the Committee on Academic Standards.

Progress toward the Degree: Normally students complete either the B.A. or the B.S. degree programs in four years taking four or five courses per semester. Students are expected to meet all requirements for graduation in effect at the time of their acceptance. Responsibility rests with the student for the election of such courses as will satisfy the requirements of the College for graduation. Freshmen become sophomores when eight courses creditable toward graduation are completed. Sophomores achieve junior status after 16 courses and juniors become seniors after 24 courses.

A minimum of 17 courses must be taken on the Dickinson campus. Students must be accepted in a major field of concentration by the time 22 courses have been completed. Six of the last eight, or the last four, courses in a student's program must be taken on campus in order to fulfill the senior residence requirement. All course work taken at other institutions after admission as a degree candidate must have prior approval from the director of off-campus studies.

Minimum Standards A student who fails to meet the minimum grade point average for his or her class will be required to withdraw unless the Committee on Academic Standards takes action otherwise. Procedures to qualify for readmission are found on page 24. The minimum average for a freshman to be in good academic standing is 1.75 for the academic year. Sophomores must have a minimum of 2.00 for the year or a cumulative average of 2.00 at the end of the sophomore year. Juniors must have a cumulative average of 2.00 at the end of the junior year. A senior to be graduated or to remain in good academic standing must have a minimum of 2.00

Credit for Course Work at Other Institutions Course work submitted by transfer students is evaluated by the registrar after a preliminary and tentative appraisal has been performed by the admissions counselor. In general, coursework taken at accredited colleges or universities which parallels the curriculum at Dickinson is transferable provided grades of "C" (2.00 on a 4.0 scale) or better have been earned. A maximum of 17 courses may be accepted for transfer. Transfer students must then complete the remaining 17 courses toward graduation on campus.

Dickinson students who desire to study away from campus for summer study or during the academic year must obtain prior approval of the program of study from the director of off-campus studies and their academic adviser. In general, the same conditions for acceptance of proposed courses apply as described above for transfer students. Students in good academic standing may receive up to a total of four transfer course credits for summer study at other approved institutions; they may be taken in a combination of one or more summers. Off-campus study during the academic year is normally limited to a maximum of four and a half courses for one semester or nine courses for a full academic year. (See in-absentia under Changes in Student Status.)

In addition, off-campus study in the senior year, if it precludes a student from being on campus for six of the last eight courses, or the last four courses, preceding graduation, requires special approval from the director of off-campus studies. Special approval is also necessary for participation in more than two semesters of study off campus or for participation in more than one off-campus program.

Final determination of credit and satisfaction of Dickinson distribution and language requirements will be determined by the registrar.

Changes in Student Status

In-Absentia (Off-Campus Study): A student who is given prior approval to study at another institution during the academic year and while enrolled at the College is considered to be in-absentia. Approval for this status can be granted for one semester or one year by the director of off-campus studies. In absentia students may transfer up to one full year of academic work if prior approval of the program has been obtained. Students planning to be in absentia preregister for off-campus study but normally do not pay tuition or fees to Dickinson. Upon return on schedule to the College they do not need to apply for formal readmission.

Leave of Absence: An approved leave of absence for one semester or one year enables a student to maintain enrollment at the College but does not permit any academic work to be taken for subsequent transfer credit. This status may be granted by the Office of Student Services and the Office of Academic Affairs and is subject to renewal. Students who return on schedule do not need to apply for formal readmission. Students should contact the Office of Student Services for the appropriate forms and information and to schedule an exit interview.

A voluntary leave of absence may be granted prior to the date of Roll Call for any given semester. "W" (for withdrawal) grades will be recorded in lieu of a regular grade for all registered courses. A student may be required by the dean of the college to take up to one semester's leave of absence if such action is judged to be in the student's academic interest.

Withdrawal: Withdrawal from the College whether voluntary, required, or administrative discontinues enrollment as a degree candidate. A student who withdraws and later wishes to return must make formal application to the registrar for readmission. If the student's average was below the minimum class standard the application will be considered by the Committee on Academic Standards.

A student may withdraw voluntarily at any time with "W" grades being recorded for all registered courses if the withdrawal is made before the first day of final examinations. If withdrawal is made during the final examination period, regular grades will be recorded. Students should contact the Office of Student Services for the appropriate forms and information and to schedule an exit interview.

Students whose academic average falls below the minimum standards for their class are required to withdraw. The committee on academic standards may make exception and allow a student to continue enrollment on academic probation for which special requirements are established. A student may qualify for readmission by attending an accredited institution for one semester (not a summer session) with a full program of study approved in advance by the Office of Academic Affairs and the Committee on Academic Standards, attain a minimum average of 2.25, and have no grades lower than a "C." Military service or satisfactory employment for at least one year may be substituted for a semester of academic work.

Students who fail to preregister or register and who do not inform the College of their plans will be administratively withdrawn. Such students may apply for readmission. Note: See page 176 for regulations regarding withdrawal from a course.

Dismissal: A student required to withdraw for a second time for academic reasons is dismissed from the College without the privilege of readmission at any time.

Information for Students not Enrolled for a Dickinson Degree

Enrollment and Registration Students not enrolled for a degree are admitted to the College through either the Office of Admissions or the Office of Continuing Education, depending on their status. Either office can advise students on the proper procedure to follow. Continuing education students are registered through the director of that program and do not participate in preregistration or in registration. Nondegree students admitted through the Office of Admissions are considered special registrants for their first registration and participate in registration. Subsequent semester course scheduling by these students

occurs through normal preregistration and registration procedures. Registration priority after the first semester is determined by the number of courses completed.

General Policies and Academic Standards A nondegree student must meet the same minimum standards required of a degree candidate. As with registration priority, the number of courses completed will determine classification and applicable standards.

A nondegree student may be part-time (fewer than three courses) or full-time (between three and five and one-half courses) depending on the circumstances of admission. This status can be changed only by agreement with the office that admitted the student.

Nondegree students who are attending Dickinson while enrolled in another institution must be in good academic standing at their home school and have the recommendation of the appropriate official responsible for approval of their program. It is the responsibility of such students to obtain all advice necessary regarding their course selections and various grading options from their home institution.

Conversion to Degree Status Nondegree students may apply to the Office of Admissions for regular admission. If admission to degree status is approved, all coursework completed at Dickinson will be accepted toward the degree, provided that the student has more than 12 courses remaining to graduate. At least 12 courses must be taken while enrolled for a degree and with an approved major field of concentration. A minimum of 17 courses must be taken at Dickinson. Previous coursework from other institutions will be evaluated on the same basis as transfer credit. In general, the student must meet all requirements for graduation in effect at the time of acceptance.

The Community

Living and Learning on Campus

- · Arts and Languages
- Student Media
- Student Activities
- Recreational Sports and Intercollegiate Athletics
- Cultural Affairs
- · Religious Life
- Academic Advising
- · Graduate and Professional Studies
- Career Services
- Counseling Services
- Social and Residential Policies
- Residential Services
- · Safety and Security Procedures

A t Dickinson College the living/learning environment extends far beyond the limits of the classroom, library, or laboratory. Whenever and wherever students congregate with their peers or with College community members, there is conversation and collegiality. The mix of faculty, staff, and students from varied backgrounds and disciplines shapes Dickinson's character and assures that learning occurs in the classroom, on the athletic field, in the art studio, and in the residence hall, from early morning hours to late into the night.

Students at Dickinson participate in an impressive range of cocurricular activities. There are tremendous opportunities for students to develop and strengthen values through social, athletic, cultural, and intellectual experiences. Dickinson students contribute significantly to the all-College governance structure as well as to the residential settings. Determining budget priorities for student organizations, establishing campus policies, and interviewing candidates for faculty and administrative positions provide students with meaningful learning experiences and involve them in the College's decision-making process.

Most Dickinson students remain on campus during weekends, choosing to take part in the wide range of

social, recreational, and cultural activities offered by the College under the auspices of the Division of Educational Services. The opportunity for students to plan and participate in these activities and to assume leadership positions in a broad spectrum of student organizations enhances campus life at Dickinson. This involvement contributes to the high student retention rate at Dickinson.

Arts and Languages

Cocurricular activities of the College augment the traditional curriculum in the arts and languages. Under the supervision of faculty directors, these activities present the challenge and enjoyment of performance and production. Students and members of the faculty together engage in the instruction, practice, and performance of music, drama, and dance. Language houses and clubs extend the study and exploration of foreign languages and cultures. Production of student publications, broadcasts, and debates create a wide range of experiences in which the learning-teaching experience is integrated into student life.

Music

The cocurriculum in music at Dickinson College is unique in its purpose and scope, and the level of student participation and enthusiasm for music making at Dickinson reflects the success of the program. There are three foundations to a college education in music whether one is a major or, more often, simply a participant: courses in music history and theory present the historical and cultural focus of the literature in music; applied lessons in instruments and voice taught on an individual basis develop the student's technical and interpretive abilities; and, the cocurricular ensembles offer the student an opportunity to develop further and to enjoy these skills through regular rehearsal and performance. In presenting these three dimensions, the music faculty work closely as a team. The Weiss Center for the Arts provides complete facilities for instruction, practice, rehearsal, and performance.

The ensembles described below are all directed by professional musicians and are open to all Dickinson students, faculty, and members of the Carlisle community through auditions.

In the field of serious music, students may join the College Choir of 125 voices, the selective Chamber Choir of 28 voices, the Collegium Musicum for Early Music, the Symphonic Band, or the 70 member College-Community Orchestra. In the field of popular music, Dickinson offers students the opportunity to join the Jazz Ensemble. Cocurricular instruction in jazz improvisation and arranging is offered as well. The music department offers extensive opportunities to study and perform chamber music in the Woodwind Quintet, Brass Ensemble, String Ensemble, and Guitar Ensemble. On the first Wednesday of each month during the academic year, the music department presents a Noonday Concert in the Rubendall Recital Hall, drawing upon musicians from all these activities.

Drama

The cocurricular program in drama provides students with the opportunity to experience the excitement and involvement of theatrical production in cooperation with the dramatic arts department. Characterized by energetic commitment, students active in cocurricular drama are a mix of those who are

majoring in dramatic arts and those who are primarily interested in participating in the many aspects of production.

Faculty in the department of dramatic arts and the designer and technical director for the Mermaid Players oversee productions and provide instructional support for the program. The theatrical organization for the program is the Mermaid Players. Each year students who have been active in the productions are tapped for membership in the Players.

Last year the Players staged Michael Frayn's comedy, *Noises Off,* Calderon's *Life is a Dream,* and the musical, *Guys and Dolls.* In addition to major productions, each year the program includes the Freshman Plays, one-acts with freshman casts directed by upperclass students, and the experimental Lab Shows, also directed by students. Open try-outs are held before each production.

Dance

The Dance Theatre Group, a cocurricular organization run by a student committee with a faculty director, sponsors performances, workshops, classes, "jam sessions," films, and lectures which are open to all



those interested in dance regardless of experience. In addition, the group produces both a fall and spring concert of student choreography. These performances include solos as well as large group dances and cover a variety of styles including jazz, modern, ballet, and dance-drama. Anyone may audition to perform in these concerts or volunteer to help on technical, costume, and publicity crews.

Curricular instruction in dance techniques (modern, ballet, jazz), movement fundamentals, and composition, as well as in dance theory and history, is offered through both the physical education and the dramatic arts programs. Students participating in the Dance Theatre Group are encouraged although not required to take dance classes. For further information on the dance curriculum, refer to dramatic arts course offerings on page 57.

Students interested in classical ballet may take advantage of the Central Pennsylvania Youth Ballet, an established regional ballet company and school with a reputation for high-quality instruction, located a mile from campus. Experienced students may be invited to join CPYB, which presents performances throughout Pennsylvania and surrounding states. The CPYB and the College cooperate in offering a summer program of ballet instruction for five weeks in June and July.

Language Houses and Clubs

In the belief that integrative education is essential to the liberal arts experience, foreign language departments provide various opportunities for Dickinson students to enhance their study of a foreign language and culture. Involvement in the cocurricular language program is an effective and valuable way for faculty and students to enjoy exchanges outside the classroom and adds an important and positive dimension to the Dickinson educational experience.

The departments of French and Italian, German, Russian, and Spanish and Portuguese sponsor language houses in which interested students may apply to live. The house residents speak the language of the house as well as participating in numerous activities sponsored for the college community by the language house and respective language club. A foreign student assistant is in residence and oversees many of the activities in the French, German, Spanish, and Italian houses, thus helping those who plan study abroad to prepare for that experience and offering those who

have studied abroad the opportunity to renew and amplify their experiences. Language clubs and houses, in cooperation with language departments, sponsor lecture series, films, concerts, art shows, dinners, and parties to which all who are interested in the language and culture are welcome.

The Maison Française, established in 1974, creates for students the cultural, social, and intellectual climate of France and encourages them to contribute actively to that climate. Noteworthy events in recent years have included the special meals at French festive seasons, establishment of a student-produced radio program in French, and numerous causeries (informal presentations) by former Toulouse juniors, faculty members, and invited guest speakers.

The German House provides eight students the opportunity to taste German culture through various activities such as Kaffeeklatsch, Faschingsparty, movies, and lectures. Since students in the house speak German on a regular basis, they feel much more at ease in their use of the German language.

La Casa Italiana is the informal place for those interested in Italian or Italy and sponsors ethnic food meals, musical programs, slide shows, and films. In the spring semester the Casa and the Italian Club sponsor special events during Italian Week. Other activities have included a lecture by Prof. Giovanni Cecchetti, a piano recital by Almerindo d'Amato, guitar recitals by Peppino D'Agostino, frequent Italian films, occasional speakers, and a weekly radio program in Italian.

Bimonthly programs in the *Casa Hispánica* center on topics of Hispanic interest: history of Latin American foods, Spanish folklore and folk music, paella dinner, and bilingual education career opportunites. The Spanish and Portuguese department also encourages student involvement in its annual Latin American colloquium devoted to the study of contemporary sociopolitical problems or to a particular literary figure in Latin America. There is a student-produced radio show as well.

The Russian House provides a small group of students the opportunity to live with people with whom they share a common language and interests. The house and the Russian Club host lectures, receptions, Russian sing-alongs, parties, teas, and films. The Dickinson Russian House, which receives live Soviet television broadcasts, serves as the focus of Russian cultural activities on campus.

Student Media

The Dickinsonian was founded as Dickinson College's weekly newspaper in 1872, with the motto on the masthead, "Give the people the light so that they may find the way." Today, The Dickinsonian continues to uphold its historical commitment as an essential constructive voice of, and information source for, the College community. In addition to the respect the paper commands at home, it is an Associated Collegiate Press award recipient.

The Dickinsonian is published throughout the academic year by students of Dickinson College. Approximately 2,200 copies are printed weekly for free distribution on campus and extensive mailing abroad. A student newspaper staff participates in the publication of each issue under the guidance of a democratically-elected editorial board of 15 individuals. Editorial policy and subject matter of *The Dickinsonian* are largely determined by this board. Student and faculty contributions in the form of letters, articles, or opinion statements are always encouraged.

The Dickinsonian offers the entire College community news, arts, and sports coverage. For those directly involved in the actual weekly issue production, it provides valuable experience. As a respected voice, a creative outlet, and a source for group interaction, *The Dickinsonian* excels as a major cocurricular opportunity for all members of the campus community.

The Dickinson Review, a literary magazine, is published by the Belles Lettres Society. Founded in 1786, the Belles Lettres Society is one of the three original literary societies on campus. The yearbook, *The Microcosm*, provides students with additional outlets for publishing their writing and art.

The college radio station, WDCV-FM (88.3), broadcasts daily from 6 a.m. to 2 a.m. in a radius of 20-24 miles. Information and entertainment programming is staffed and managed by students.

A media council composed of students, faculty, and administrators affords an opportunity for all student media to gather and exchange ideas on improving communication and sponsoring joint events.

Student Activities

Dickinson students participate in a wide range of activities in which they have responsibility for funding, organizing, and implementing ideas. As initiators, officers, chairpersons, and committee members of clubs, societies, and organizations, students develop and exercise interpersonal and organizational skills while creating their own recreation and entertainment. Substantial involvement in one organization is often complemented by the enjoyment of the activities of others.

The Student Senate is a representative body whose members are elected annually from among all campus residences and students living off campus. The senate has responsibility for allocation of the student activities fee fund to student clubs and organizations. The officers and members of the senate committees serve as liaison with the administration and faculty and as representatives of the student body.

Student Senate committees, social organizations, and the Office of Student Services plan social, cultural, recreational, and educational events for students. The concert committee brings popular performers to the campus while the cultural affairs committee sponsors performances by artists in the field of dance, theatre, and music. Several of these programs have artists in residence who conduct workshops and discussions in which students participate.

In addition to the performances provided by the cocurricular program, student organizations also present plays, musicals, and dances. In recent years the Arts House produced *The Shadow Box*, and *The Good Doc*tor, and the Follies presented *West Side Story* and *Two By Two*. These groups encourage participation by anyone willing to contribute time and energy. Tryouts are open for all productions, and there is regular recruitment for production crews.

Dickincinema and the Film Society bring full-length feature films to the campus weekly throughout the academic year. Weekly movies shown recently included *Moonstruck*, *The Witches of Eastwick*, *Big*, and *Wallstreet*. Many of the academic departments lend support to the film program by cosponsoring film masterpieces and lesser known works.

The Campus Activities Board, as well as other campus groups, plan programs for college-wide participation. Annually they bring to campus comedians, musicians, and novelty artists such as: hypnotists,

Student Clubs and Activities

Outside of Recreational Sports

African American Society Alpha Lambda Delta Alpha Omicron Delta Alpha Phi Omega Amnesty International

Arts House

BACCHUS (Boosting Alcohol Consciousness Among College and University Students)

Big/Little Brother/Sister Program

Bridge Club

Campus Activities Board

Cheerleaders
Chemistry Club
Chess Club
Circle K
College Bowl
College Democrats
College Republicans

Computer Science/Math Society

Concert Committee Contributors' Banquet Cultural Affairs Cycling Club

Dance Theatre Group

DARE (Dickinsonians Advocating Resourcefulness

in the Environment)

Dickincinema

Dickinson Review (literary magazine)
The Dickinsonian (student newspaper)

Debate Club
East Asia Club
Fall Fest Committee
Fine Arts Society
Fishing Club
Follies
French Club
Geological Society
German Club

GLAD (Gays and Lesbians at Dickinson)

Habitat for Humanity Interfraternity Council International Club Intervarsity Club Italian Club Iazz Ensemble

Korean Students Association

Latin American Club

Math Club Mermaid Players

Mermaid's Tale (freshman book)

Metzger/Conway Series Microcosm (yearbook) Model UN Club Multicultural House Omicron Delta Kappa Panhellenic Council

Pep Band
Pershing Rifles
Pre-Health Society
Pre-Law Society
Psychology Association
Public Affairs Symposium
Residence Hall Association

Russian Club

Sexuality Resource Group Society of Hispanic Students

Spanish Club

Spring Fest Committee Student Alumni Council Student Film Society Student Senate

Symphonic Band

WDCV (student radio station)

Wheel and Chain Women's Center magicians, jugglers, and mimes. Other annual events on the College calendar include Oktoberfest, Parents Weekend, Siblings Weekend, and a variety of concerts, dances, games, contests, and barbecues. On any given weekend, late-night entertainment can be found in Union Station, which provides food, beverages, and entertainment in a warm and friendly atmosphere similar to that of an intimate lounge, and in the new student coffeehouse located next to the Kline Life/Sports Learning Center.

Numerous student clubs and societies support the common interests and activities of their members and provide seminars, speakers, tournaments, trips, and picnics for the entire campus community. Bus trips to Baltimore, Washington, D.C., New York City, and Philadelphia are scheduled several times a year and often include performances and visits to museums. Trips to other colleges for cultural events, special theme weekends, and concerts are also sponsored.

Honor Societies

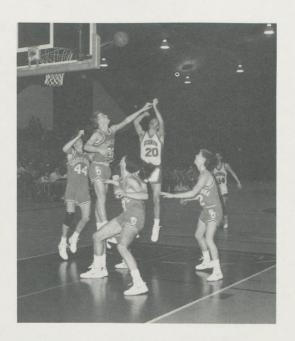
The Pennsylvania Alpha chapter of Phi Beta Kappa was established at Dickinson College on April 13, 1887. Election to membership is the highest academic honor available to a Dickinson student, and only those who rank among the top 10 percent of their class are eligible.

Other honorary societies are as follows: Tau Kappa Alpha, debating and oratory; Pi Delta Epsilon, journalism; Alpha Psi Omega, drama; Pi Gamma Mu, social science; Phi Mu Alpha Sinfonia, music; Delta Phi Alpha, German; Pi Delta Phi, French; Sigma Delta Pi, Spanish; Eta Sigma Phi, classics; Psi Chi, psychology; Phi Alpha Theta, history; Pi Mu Epsilon, mathematics.

Omicron Delta Kappa, established at Dickinson in 1927, is a national leadership society for seniors of outstanding ability. Wheel and Chain is a leadership society for senior women. Raven's Claw is a campus social recognition society. Alpha Lambda Delta, chartered at Dickinson in 1989, is a national academic honor society for students who achieve well academically during their freshman year in college.

Greek Life

Approximately 48 percent of Dickinson men belong to 10 national Greek social fraternities which have chapters at Dickinson: Alpha Chi Rho, Beta Theta Pi,



Kappa Sigma, Phi Epsilon Pi, Phi Delta Theta, Phi Kappa Sigma, Phi Kappa Psi, Sigma Alpha Epsilon, Sigma Chi, and Theta Chi. Most fraternities occupy a residential hall on the campus.

Four national sororities have chapters at Dickinson: Delta Delta Delta, Pi Beta Phi, Kappa Kappa Gamma, and Kappa Alpha Theta. There is one local sorority, Delta Nu. Sororities independently maintain their meeting rooms in the town of Carlisle. Approximately 45 percent of Dickinson women are affiliated with sororities.

An Interfraternity Council, Panhellenic Association, and Greek Council oversee Greek life on campus.

Recreational Sports and Intercollegiate Athletics

Intercollegiate Athletics

The intercollegiate athletic program at Dickinson offers experienced coaching, outstanding training/competition facilities, and athletic competition at the

Division III level of the NCAA for both men and women. The College is a member of the Middle Atlantic States Athletic Conference, Centennial Football Conference, and Eastern Collegiate Athletic Conference. Competition in all of these conferences allows Dickinson athletes to compete against some of the best teams and individual athletes in the nation at the Division III level.

The program includes 11 intercollegiate sports for men and 11 for women, many of which offer junior varsity opportunities as well as varsity competition.

For men: For women: Football Field Hockey Soccer Soccer Cross Country Cross Country Basketball Basketball Swimming Swimming

Indoor Track and Field Indoor Track and Field Golf Volleyball Baseball. Softball

Lacrosse Lacrosse Track and Field Track and Field

Tennis Tennis

Recreational Sports

The hallmark of recreational sports at Dickinson is participation. The program provides facilities, equipment, and activities to meet the diverse needs and interests of the entire College community.

Recreational sports includes three program areas: intramurals, sport clubs, and special programs. Within these areas are opportunities for competition in team, dual, and individual sports for men and women; practice, instruction, and competition in common interest group activity; and nontraditional self-paced activities. The program is flexible and nonstatic with activities and format based upon the interests of the College community and availability of facilities.

Sport Clubs

For Men:	For Women:	Coed:
Boxing	Rugby	Equestrian
Ice Hockey		Fencing
Rugby		Outing
Volleyball		Sailing
Wrestling		Ski Racing
		Squash

Truly Living Program

Dickinson's Truly Living Program promotes health and life style enhancement for all members of the College community. Cosponsored by the Department of Physical Education and the Office of Educational Services, this approach to "wellness" provides continuing programs on such topics as stress management, physical fitness, nutrition, smoking cessation, and alcohol awareness.

Facilities

Dickinson's physical activity facilities are among the finest in the country for a small, liberal arts college. The College's indoor sports area is the magnificent Kline Life/Sports Learning Center. The 38,600square-foot field house contains a competition basketball court; multi-purpose practice courts for tennis, basketball, volleyball, and badminton; space for indoor golf, baseball, and archery practice; and a fourlane, 200-meter track. An eight-lane pool with a separate diving well and seating for more than 300 compose the aquatics center of the facility. Squash and racquetball courts, a dance studio, a strength-training facility, a sports medicine center, a seminar room, offices, spacious lobby, and landscaped patio complete the Kline Center.

Dickinson's open recreational area includes field space for softball, touch football, soccer, golf, and rugby. Additional field space is available for intercollegiate and some recreational sports programs at the College's Biddle Field. This area includes space for football, soccer, baseball, field hockey, and lacrosse. In addition to the sports fields, this area has a large locker room facility for men and women, sports medicine center, and strength-training facility. The intercollegiate football playing field is the hub of the Biddle Field area and is designed to accommodate 5,000 spectators. The Biddle Field facility is also used by the Washington Redskins as their preseason training camp.

Cultural Affairs

A wide range of cultural affairs programs at Dickinson present many occasions for the celebration of intellect and talent in all disciplines. These lectures, performances, films, exhibits, and symposia demonstrate the value of the liberal arts while furthering educational experience. These programs are sponsored by campus organizations, student committees, academic departments, and educational services. Students are actively involved in the planning and presentation of all cultural events.

Annual Symposia and Celebrations

The Joseph Priestley Celebration Each year the Priestley Celebration brings to campus a distinguished scientist to be honored for discoveries which contribute to the welfare of mankind. The award is made in memory of Joseph Priestley, discoverer of oxvgen. During the celebration, the College's collection of Priestley apparatus and memorabilia is displayed. The recipient is given an honorarium and a ceramic medallion struck from an original 1779 mold by Josiah Wedgwood which bears a likeness of Priestley derived from a pen-and-ink drawing by John Flaxman. The president of the College selects the award recipient from a slate of nominees submitted by the Science Executive Committee which solicits these nominations from earlier Priestley Award recipients and others associated with the award since it was established in 1952. Recipients of the Priestley Award are listed on page 225.

The Public Affairs Symposium The Public Affairs Symposium annually brings to campus distinguished figures from government, business, and educational fields to participate with members of the College in a discussion of a topic of broad public interest. Each year this topic is selected from among proposals submitted by students and faculty. The three-day symposium features debates, discussions, films, and other presentations which explore many aspects of the subject of the symposium. The 1989 symposium explored the topic of the American family and Eleanor Holmes Norton was keynote speaker. Prof. Norton, of Georgetown University Law Center, served as chair of the U.S. Equal Opportunities Commission during the Carter administration. Keynote speaker for the 1988 symposium on American education was Chester E. Finn, Jr., assistant secretary of education. The 1987 symposium on sport featured Howard Cosell, sportswriter and journalist. The 1986 symposium on religion spotlighted Father Robert Drinan, who served 10 years in the U.S. House before being advised by the Vatican in 1980 that elective office was

not appropriate for a priest. The 1985 symposium on media featured Jody Powell, ABC news correspondent and press secretary to President Carter, and David Gergen, media relations director for Presidents Nixon, Ford, and Reagan. PAS is made possible by an endowed fund from the estate of Mabel Burkholder '14.

The Dickinson College Arts Award The College's Arts Award honors an individual or group who has made an outstanding contribution to the creative or performing arts. Each recipient spends several days in residence at the College sharing talents and ideas with the College community.

The Arts Award was initiated by the Dickinson faculty and endowed in 1959 by gifts from members of the board of trustees in honor of William W. Edel, president of the College from 1946 to 1959. The recipient of the award is given a Wedgwood medallion bearing the likeness of President Edel based upon a sculpture created by Nancy Dryfoos, distinguished American sculptor. The medallion was cast for Dickinson College by the Wedgwood Potteries of Baralston, England. In addition to the medallion, the awardee receives an honorarium. Recipients of the Dickinson College Arts Award are listed on page 225.

The Black Arts Festival The African American Society sponsors an annual Black Arts Festival featuring nationally prominent black artists and educators. Typically the festival includes educational and entertaining performances of music, dance, dramatic presentations, and visual art exhibitions. Among participants in the Black Arts Festival have been Ossie Davis, Maya Angelou, Nikki Giovanni, the Philadelphia Dance Company, and the Tony Award-winning musical Ain't Misbehavin'. Our campus has been greatly enriched by the presence of these outstanding members of the intellectual and artistic world.

The Multicultural Fair The Korean Students Association, the East Asia Club, the Society of Hispanic Students, and the International Club, have joined with the African American Society to expand the Black Arts Festival into a Multicultural Fair. The Fair is a four-day extravaganza of educational and entertaining events from all of the different cultures. Some of the events have included: "a speech by black activist Ralph Abernathy," a Korean coffee house, a Peking Opera, and a performance by the Philadelphia Dance Company.

Special Lectures and Scholars in Residence

Each year outstanding scholars from other institutions and distinguished public figures present lectures on campus which provide the opportunity for faculty and students to come into contact with a wide range of research and viewpoints. Many departments and college groups sponsor lectures and discussions for small groups of students and faculty which encourage the exploration of issues beyond the classroom. In addition, a series of late afternoon teas and discussions provide students and faculty with a forum in which to discuss their own scholarship and activities. Environmental issues, new approaches to teaching, recent research into the history of U.S. relations with Latin American countries are a few of the topics discussed in this series. The Chautauqua Series of concerts, lectures, and plays takes place every Wednesday evening during the summer term.

The Morgan Lectureship Endowed by the board of trustees in 1929, in grateful appreciation for the distinguished service of James Henry Morgan of the Class of 1878, professor of Greek, dean, and president of the College, the Morgan Lectureship is used by the president of the College "for the procurement of one or more special lectures annually upon such subject or subjects as he may deem wise. . . . " The lectureship brings to campus a scholar in residence for three to five days to meet informally with individuals and class groups, and to deliver the Morgan lectures on topics in the social sciences and humanities. Recent scholars have been Jorge Luis Borges, William Jordan, Fredric Jameson, and Jonathan Spence, who presented the 1987 lecture on "Cultural Crossings: China and France in the Eighteenth Century."

The Pflaum Lectures in History are supported by income from a fund contributed by students and friends of the late Prof. John C. Pflaum in appreciation of his effective teaching. The lectures bring to campus scholars who, like Professor Pflaum, are particularly successful in oral presentation of historical topics. The 1988 lecturer was Robert Weiner, professor of history, Lafayette College, Easton, Pennsylvania, who gave a speech entitled "French Jewry Since World War II." Dr. Richard J. Sommers of the U.S. Military History Institute, Carlisle Barracks, Pennsylvania, presented the 1987 Pflaum Lecture on "The

Generalships of Lee and Grant at the Battle of Petersburg." The 1986 lecturer was Imanuel Geiss, professor of history, University of Bremen and Visiting Fulbright Scholar at Dickinson, who spoke on the "Origins of World War I and Germany."

The Boyd Lee Spahr Lectures in Americana This lecture was established in 1947 in recognition of the importance of Dickinson College and its graduates in the history of American culture. It is named in honor of Boyd Lee Spahr, A.M., LL.D., D.C.L., of the Class of 1900, in grateful appreciation of his continuous interest in the Dickinson College library and of his numerous contributions to historical collections. The most recent lecture presented was "A Greed for Letters: the Education of Slaves in the United States" by Dr. Richard C. Morris.

The Glover Memorial Lectures are presented in alternate years. This lectureship in science was established in 1958 in memory of John Glover of Newcastle-upon-Tyne, England, the inventor of the Glover Tower, and in memory of his son and grandson, Henry and Lester Glover, by the late Dr. John D. Yeagley and Mrs. Yeagley of York, Pennsylvania. Frank Drake presented the most recent Glover Lecture on the topic of "The Search for Life in the Universe."

The Rabinowitz Program was established to create links between the spheres of academia and business. This two-part program provides a forum for the exchange of ideas, values, and experiences; defines for the academic world the breadth of human endeavor encompassed by those involved with the profitmaking sector of our society; provides visiting participants an opportunity for reflection on the value of the liberal arts in corporate life; and recognizes those who exemplify liberal arts excellence beyond the world of the academy.

To accomplish its objectives, the Rabinowitz program contains two elements: a residency and an award.

The executive-in-residence component is a three-day program in which a visiting corporate executive or government leader is integrated into the life of the Dickinson community in a variety of ways. Occasions for interaction are both structured and unstructured. The individual attends classes, participates in selected seminars, and meets informally with students and fac-

ulty in contexts which span the learning/living environments of the campus. In the fall of 1986, Dickinson alumnus J. Bruce McKinney, president and chief operating officer of the Hershey Entertainment and Resort Company, spent three days on campus as the College's first executive-in-residence.

The Benjamin Rush Award for Humanistic Values in Corporate Life is presented annually by Dickinson to a business or government leader who has demonstrated through his or her actions a personal commitment to the values of the liberal arts as expressed in principles upon which Dickinson was founded and to which the College is committed.

The award itself is a medal which has been struck in bronze and bears a likeness of Benjamin Rush, a founder of Dickinson College and a signer of the Declaration of Independence.

Each year the recipient delivers a public address on a topic pertaining to the relationship between the liberal arts and corporate life at the time of the award presentation.

The 1988-89 Rush Award recipient was Louis Wellington Cabot, chairman of the board of directors of The Brookings Institution, a director of the Association of Governing Boards of Universities and Colleges, and past chairman of the Sloan Commission on Government and Higher Education.

The Donald W. Flaherty Lecture is supported by a fund established by students, colleagues, and friends of Professor Flaherty, a pioneer in the development of Asian studies at Dickinson. The lectureship brings to campus scholars and speakers who reflect Professor Flaherty's lifelong interest in all aspects of Asian history, culture, and politics. The first lecture was presented in 1987-1988 by Dr. Frederic Wakeman, President of the Social Science Research Council. He spoke on the topic, "The Rise of the Chinese Secret Service."

Religious Life

From its founding, Dickinson College has subscribed to the belief that the worship of God and the study of religion are integral to liberal education. In response to a heritage that recognizes freedom of worship, no student is ever denied admission to the College because of sect or creed. Dickinson treasures its religious diversity and the richness that diversity brings. Catholic, Protestant, and Jewish students are encouraged to examine their own heritage through courses in the Department of Religion and through programs sponsored by the Office of the Chaplain. Weekly worship services are held for Catholic and Iewish students and special Holy Days of major faiths are marked by appropriate worship services. During Advent, ecumenical vespers services are held. An all-College Christmas candlelight service is a highlight of the season for Christian students. Jewish students enjoy High Holy Day services on campus as well as the traditional Passover Seder.

The Interfaith Lounge is a meeting place for a variety of student religious groups. Students are welcome to drop by the Lounge to read seminary catalogues and material on current issues facing the church and synagogue. An interfaith chapel on the ground floor of Old West, Durbin Oratory, serves as a place for meditation or small worship services.

Community interaction is encouraged by the Big/Little Program where students serve as older friends to community children. In addition other students share their talents and their concerns with residents of a local nursing home or through the Carlisle Tutoring Program. A Habitat for Humanity chapter was chartered at Dickinson this past year.

Peace and justice issues are addressed through lectures and programs which increase students' awareness. Lecturers have included Jurgen Moltmann and Dorothee Soelle, noted theologians. A yearly fast for World Hunger gives a direct way to confront the problem of hunger.

The College chaplain coordinates religious life on campus. Besides these more formal duties, the chaplain is available as a counselor to those who need a listening ear.

Women and men considering the possibility of careers within their church or synagogue are assisted in their preparation. A variety of internship possibilities are available as part of this preparation.

Academic Advising

Entering students are assigned to academic advisers with whom they will work throughout the freshman and sophomore years. Normally students are prepared to declare the major field of concentration at the end of the sophomore year and at that time they request or are assigned to an adviser in the major field. Students may change advisers by filing the change of adviser form, but they must have an academic adviser. Special advisers in the professional programs, and directors of programs for study in special areas and locations, provide advice to students interested in particular academic opportunities. All faculty members maintain office hours, and students are encouraged to take questions to them and to seek their advice on academic matters.

Licensed and certified professionals as well as peer counselors serve students through an extensive counseling network. Active referral and cooperation within the network encourages students to seek appropriate guidance and support throughout their college year.

Individual Advising

Students are responsible for selecting the courses in which they enroll and for the election of courses which will satisfy the requirements of the College for graduation. Academic advisers help them to identify appropriate courses, to become aware of the requirements and choices that need to be considered, and to develop their educational goals. During New Student Orientation incoming freshmen and transfer students meet with their advisers to plan their academic programs and prepare for registration. The advisers are available throughout the year to help with problems and questions that arise. All students meet with their academic advisers during the preregistration periods in November and April to discuss progress in their current courses and to plan for the next semester. These periodic sessions provide for regular review of the students' plans.

In most cases, freshman advisers work with students living in adjacent locations who are members of the same seminar groups. The academic adviser and an upperclass student resident adviser (RA), who lives in the freshman residence, work closely as an advising team. They help freshmen become familiar with the requirements and expectations of the College. Both are available for assistance and support. Whenever possible the residence and the seminar arrangements are coordinated to facilitate frequent contact between students and their advisers.

Transfer students are assigned to academic advisers who assist with the planning of academic programs and adjustment to the requirements at Dickinson, and help in the process of declaring the major. Transfer students continue with the assigned adviser until they are prepared to request an adviser in their major.

Academic advisers frequently refer students with specific questions to special advisers in preprofessional areas, the directors of off-campus programs, and career counselors. Students may seek advice from any of the special advisers at any time. Those interested in engineering are requested to consult with the pre-engineering adviser during New Student Orientation and before registering for courses. Students interested in health professions need to notify the chairman of the prehealth committee of their intention in order that they may be assigned a prehealth adviser.

Generally students continue with the same academic adviser into the sophomore year or until they decide on a major field of concentration. When the student selects a major, he or she is assigned an adviser who is a faculty member teaching in the major department or interdisciplinary program. The major adviser assists with the planning for the concentration and the remaining work toward the degree.

Tutoring and academic enrichment programs provide individual and group tutoring services for most introductory courses requested. Tutoring services are available through the Associate Dean of the College.

Graduate and Professional Studies

Advising is available to all students considering graduate or professional study in such fields as the health professions, law, business, teaching, journalism, engineering, and theology. During new student orientation week and the early weeks of the fall semester, faculty members who serve as preprofessional advisers hold introductory meetings for students considering professional careers.

Students are encouraged to attend the preprofessional advising sessions in order to seek the advice of the preprofessional advisers. Students interested in medical careers should contact the chairman of the Committee for Health Professionals for assignment to one of the committee members. The prelaw adviser conducts several open sessions during the year to help students plan for law school application. The prelaw adviser is available to assist students with program planning and to assist them when they apply to law schools. The prebusiness adviser provides guidance to students preparing for business and management careers. The teacher preparation program is supervised by its director, who works closely with all students seeking teacher certification. A member of the English department advises prejournalism students. The chaplain assists students planning to study theology.

Preparation for a professional life begins with the development of intellectual stamina, confidence, and the capacity to enter and complete professional training. No single area of study will fully provide the necessary experience, nor is there one route which suits every student. Requirements of medical schools include specific course work in chemistry, biology, physics, mathematics, and English. The best preparation for law school is to develop analytical and communicative skills; students will need the ability to solve problems, especially intricate problems that invite controversy and require skillful application of analytical and argumentative skills. While preparation for some professional schools is specifically outlined, and while for others the student has more freedom, all professional schools look for evidence of excellence and commitment. Development of strengths and selfknowledge should form the basis of the undergraduate program. The College's preprofessional advisers consult with students as they determine which specific courses are necessary, make general preparation, plan the application process, and make appropriate application to professional schools.

The Office for Graduate and Professional Studies provides advice and information for students planning graduate study or professional training. The activities of the office are designed to encourage and assist qualified students to enter graduate or professional schools. The office supplements the faculty advisory system and serves as a coordinating center for student postgraduate activities. It provides information and application forms for the competitive graduate examinations (MCAT, DAT, LSAT, GMAT, GRE). It also arranges on-campus interviews with representatives of numerous graduate and professional schools and maintains an extensive catalog file for graduate and professional schools.

For premedical students the office provides several specialized services. The director arranges practice in-

terviews for those students applying to medical school. The office administers a hospital rotation program which gives qualified junior or senior premedical students an opportunity to work with physicians and professional staff at the Carlisle Hospital. In this program, each student spends one morning a week for 11 weeks with a staff physician or health care professional in each of several medical, surgical, or laboratory departments.

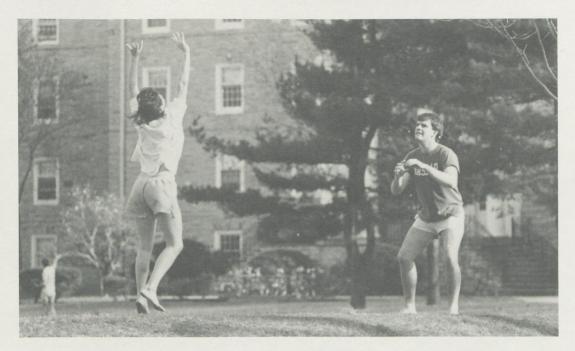
The Office for Graduate and Professional Studies works in conjunction with the faculty prehealth committee in advising students and in preparing letters of recommendation to medical schools. The director of the Office for Graduate and Professional Studies writes the cover letter for all committee recommendations. The director also maintains personal contact with the admissions officers and deans' offices at medical schools. The director monitors developments in medical education through participation in meetings and conferences of the AAMC (American Association of Medical Colleges) and the AMA (American Medical Association). The office serves as a collection point for individual students' preprofessional advising history, graduate exam results, committee letters of recommendation, and other pertinent information.

For prelaw and prebusiness students, the office coordinates its advising with faculty prelaw and pre-MBA advisers. It maintains extensive files on graduate programs and arranges on-campus interviews with representatives of schools in these fields. The director and staff maintain personal contact with the admissions officers of major law schools and MBA programs.

All the services of the Office for Graduate and Professional Studies are available to Dickinson students and alumni on a year-round basis. Any student contemplating graduate or professional school may establish an advisory file in this office and take advantage of the broad range of services provided.

Career Services

The Career Center provides a full range of career information and assistance to all students. Students are encouraged to visit the Career Center during their freshman year and continue to visit during the next two years to develop an academic and extracurricular program which will give them a strong foundation for their future employment. During their senior year,



students will want to visit the Career Center often to take advantage of the assistance with their job search.

The professional staff provides career counseling and assessment, organizes campus-wide workshops and programs, and coordinates job placement activities. In addition to the professional staff, the Career Center employs peer career counselors called Career Assistants who assist students with the job search process. While the professional staff is available primarily during the standard weekday office hours, career assistants are available during the evenings and on weekends as well.

Career services available to all students include career counseling, career assessment, resume-writing assistance, videotaped interview training, the alumni career contact file, and use of the career library. Workshops are conducted in freshman residence halls and throughout the campus on such topics as "Summer Jobs," "How to Write a Resume," "What to do with a major in...," and "International Careers." The career library is well stocked with up-to-date career resources and provides students access to career information, job placement literature, corporate reports, and phone listings from all the major cities in the United States.

In addition to the aforementioned services, seniors may participate in the recruiting program which involves over 220 organizations and corporations. As a supplement to the on-campus recruiting program, Dickinson College participates in several career fair consortiums with other liberal arts schools. At the present time, career fairs are held in New York, Washington, Philadelphia, Boston, and Harrisburg. Seniors have the opportunity to speak with recruiters from the variety of companies and organizations at these fairs. A monthly newsletter is produced for seniors which focuses on the job market and presents timely articles of interest to students conducting a job search.

Counseling Services

The counseling services staff consists of a counseling psychologist, two professional counselors, an alcohol and drug education coordinator, and approximately 20 students (including 10 peer alcohol and drug educators, newsletter writers, research assistants, and multicultural affairs assistants). Additionally, a number of part-time mental health clinicians are employed in counseling services, in order to provide mental health services in areas including: eating disorders, psychiatric consultation, and support groups for Adult Children of Alcoholics and for children from dysfunctional families. The counseling services staff

Dickinson College The Community 193

members are available to all students to help with a variety of developmental concerns. Individual and group counseling strategies are employed to aid students in managing stress, overcoming test anxiety, developing relationships, controlling chemical dependency, and learning effective time-management skills.

The alcohol and drug education coordinator, a federally funded position, provides educational information through presentations and written work made available to faculty, staff, and students. The peer alcohol and drug educators, under the supervision of the alcohol and drug education coordinator, provide accurate, current information about the effects of alcohol and drug use, responsible decisionmaking, and avoiding high-risk situations. A primary goal of the College's alcohol and drug education program is to provide a cross-campus awareness of alcohol and drug issues. This goal is achieved in part through a coreteam approach of professional staff and faculty, meeting on a regular basis throughout the academic year.

The multicultural affairs coordinator works within the counseling center and is responsible for promoting multicultural understanding on campus through the Multicultural House, Multicultural Fair, the African American Society, other ethnic clubs, and a newsletter published by multicultural assistants.

Social and Residential Policies

Students as members of the Dickinson College community are expected to conduct themselves in a manner conducive to the health and safety of the College community and consistent with the pursuit of the College's educational objectives. All students are expected to be familiar with the contents of policies in the Student Handbook printed and distributed annually by the Office of Educational Services. Dickinson subscribes to the principles of the Joint Statement on Rights and Freedoms of Students. In line with these principles, Dickinson seeks to regulate student conduct only in areas which have relevance to the College's function as an academic institution.

Dickinson students have responsibility for the management of their own affairs and for participation in the affairs of the College. Self-governance is a characteristic of residence-hall life. Each residence hall elects a residence hall council and establishes the social rules

by which its residents live. Fraternities are responsible to the Inter-Fraternity Council and to the faculty. All campus residences and students living off campus elect representatives to the Student Senate. From the Senate, student representatives are elected to All-College Committees, attend faculty meetings, and serve on college judicial boards. Through the majors committees students participate in the academic departments. Student committees, in cooperation with the Office of Student Services, are largely responsible for planning and presenting social and cultural programs on campus.

Any student who is not officially classified as a commuting or married student is required to reside in College-owned housing and participate in the college board plan. Special authorization to live off campus must be obtained from the director of residence life. Maintenance of sanitary standards precludes the presence of animals in any college building. Freshmen are not permitted to maintain automobiles or other motor vehicles at the college, in Carlisle, or its environs. Other students may bring such vehicles to the campus provided they are registered with the security office annually.

When on College-owned property or acting on behalf of the College, all Dickinson personnel, students, and groups shall observe and comply with Pennsylvania laws pertaining to alcohol, as well as the College's substance-abuse policy which proscribes drinking under age 21, drinking to excess, and sale of alcoholic beverages. Possession and use of illicit drugs and controlled substances is a violation of College policy and federal and Commonwealth of Pennsylvania laws.

The Judicial Systems

The Hearing Board, composed of members of the faculty and students, and chaired by an administrator, hears cases of alleged violations of the College Code of Conduct for Students. Such allegations may first be heard by the director of residential life in cases of social violations or the associate dean of the College in cases of academic violations. Allegations of faculty actions which constitute violations of the "Guidelines on Faculty Conduct" are first heard by an associate dean of the College. A judicial system administrator receives all complaints, notifies respondents and advises both parties of their rights and responsibilities.

In all cases of major social violations—those which may entail the penalties of expulsion, required withdrawal, or suspension of a student, and in all cases involving offenses against the academic process, the student has the right to be heard before the Hearing Board.

An Appeals Board chaired by the dean of the college or the dean of educational services and composed additionally of one faculty member and one student reviews all appeal requests.

Residential Services

Dining Service

The dining hall is an important aspect of student life. Residents participate in a mandatory board plan (included in the resident fee) and dine cafeteria style. The dining service also provides special holiday meals and monthly theme dinners. Additionally, the dining service offers the student board participants other dining options, including dining in the Union Station Snack Bar during dinner, and meal exchange programs for halls, clubs, and special interest groups.

The Union Station Snack Bar operated by dining services is a full service snack bar offering a wide variety of foods to choose from, as well as fresh pizza delivery to all locations on campus.

Student Health Services

Dickinson College provides a medical service for the convenience of its students. Health services is located at 349 West Louther Street. The facility is open Monday through Friday from 9 AM to 5 PM, and on Saturday and Sunday from 12 noon to 1 PM. The Health Center is staffed by registered nurses, nurse practitioners, and physicians. The services provided at the Health Center include but are not limited to: primary health care of the ill or injured student, full gynecological services, limited laboratory services, administration of allergy injections, self-care center for colds, and referrals to community specialists as needed.

Student health services has added the Office of Health Education. Our health educator offers educational programming on various topics important to student development outside the classroom. Education programs include such topics as alcohol awareness, sexuality, assertiveness, harassment, smoking cessation, weight reduction exercise, CPR, and more. The director of health education within health services works in conjunction with the counseling center and the physical education Truly Living Program.

Carlisle Hospital, the primary health care facility in this area, is within walking distance of the College and is readily available for emergency treatment and for major illnesses. The emergency department is open and staffed 24 hours a day with registered nurses and physicians. This facility is used if needed during the hours that the Health Center is closed. College Police provides transportation to and from the hospital if necessary.

Residential Life

The College has a variety of residences ranging from small houses and suites (bedrooms clustered around a living room and bath) to residence halls housing 40 to 200 students. The residential nature of the institution is very important; all students are expected to live on campus; a few who are married or commute from local homes are treated as exceptions. Each residence hall establishes its own regulations affecting the conduct of residents and guests, including matters such as quiet hours. These agreements are reviewed and approved by the director of residence life.

All freshman residences have resident advisers, upperclass students carefully selected to advise new students. The "RAs" play an important role in helping the newcomer acclimate to the institution and to the demands of college life; they usually live in rooms adjoining those of the students for whom they are responsible.

Freshmen room assignments are the responsibility of the director of residence life; assignments are made on the basis of a questionnaire completed before matriculation and upon the particular seminar to which a freshmen is assigned. Freshmen generally live in Adams, Drayer, and Morgan Halls, and in several quadrangle buildings. Upperclass students choose rooms in an order determined by lot. Permission to live off campus may be obtained through special authorization from the Office of Student Services.

Special Interest Housing: Several of the smaller residence halls and houses are organized in support of special interests. French, German, Italian, Spanish, and Russian Houses are residences for students seek-

ing opportunities to practice speaking a second language. They sponsor traditional celebrations and entertainment based on those cultures. The Multicultural House adds yet another option for students interested in other cultures and is active in providing campus-wide programs such as Oktoberfest, Japanese tea ceremonies, and Latin American fiestas. The African American Society maintains the Martin Luther King Library as the focus of cultural and social events in Straver House. The Arts House encourages activities planned for students interested in these activities. A Hillel House provides a place for Jewish students to practice living in a faith community. Special interest housing is encouraged and students who wish to live together and participate in programming related to a particular theme may apply. Strong faculty or administrator involvement in such endeavors is required. The All-College Student Affairs and Services Committee works with the director of residential life in administering the special interest housing program.

Residence Halls (40 or more residents)

Adams Hall, 1963. Named in honor of Dr. and Mrs. Rolland L. Adams. 187 men and women.

Drayer Hall, 1951. Named in honor of Mr. and Mrs. S. M. Drayer. 178 women.

Kisner-Woodward Hall, 1969. Named for Helen Kisner and Hugh B. Woodward. 92 men and women.

Malcolm Hall, 1966. Named in memory of Gilbert Malcolm. 79 men and women.

McKenney Hall, 1973. Named in honor of the McKenney family. 101 men and women in suites of eight.

Morgan Hall, 1955. Named in memory of James Henry Morgan. 201 men and women.

Quadrangle Residence Halls, 1964. Ten residences providing housing for up to 46 students each.

Witwer Hall, 1966. Named for the Witwer family. 80 women.

Residence Halls (fewer than 40 residents)

Mathews, 27 men and women; Montgomery, 25 men and women; Strayer, nine men and women; Stuart, 36



men and women; seven townhouse residences, eight students each; and 25 smaller houses each accommodating from three to 10 students.

Safety and Security Procedures

The Dickinson campus is protected by modern security technology and a private security staff. The College also has a program which educates community members on safety.

In addition, at Dickinson, a booklet on security concerns and emergency procedures prepared by campus police and another one on student life policies are provided to all students soon after they arrive on campus. Both are reviewed with them in detail.

Campus Community

There are 2,020 students (FTE), all undergraduates, at Dickinson, and 1,760 of them live in Collegeowned residences. Dickinson provides several housing choices, ranging from large residence halls to small

houses accommodating three students, both coed and single sex. Students select single, double, or triple rooms, quad arrangements, or special interest housing. Room selection for upperclassmen is in the spring. Freshmen and transfers are assigned rooms by the director of residential life based on preferences expressed by students.

Dickinson College has 560 employees (FTE)faculty, academic professionals, administrators, and support staff.

Residence Hall Security

There are 56 members of the Dickinson residence life staff, 50 resident advisers, and six senior resident advisers. Three full-time professional staff members serve as resident area coordinators, in addition to the director who lives off campus.

All College housing facilities are locked, requiring use of a key or keycard, 24 hours a day. Visitors, student and nonstudent, must call the person they are visiting via the telephone intercom system outside each building in order to gain access to residence halls which house more than 20 students.

Windows have standard locking devices, and some ground floor windows have security screens in place. All student rooms have individual locks for use by the occupants.

The same security system in place during the school year is used during vacation periods. In addition, outside doors are plugged to prevent use of ordinary keys when buildings are totally unoccupied.

Residence hall staffs receive training on how to use the in-house alarm systems for perimeter doors and how to handle emergency situations, such as fire. Staff members are instructed to inform their residents about the dangers of walking alone at night and the wisdom of keeping their doors locked. Students are encouraged to contact campus police if they believe they see or have seen someone suspicious.

Regulations

The Student Code of Conduct prohibits the possession or use of explosives, firearms, or other weapons in or on College-owned and -supervised property. The College Substance Abuse Policy, referred to under Social and Residential Policies, complies with the Commonwealth of Pennsylvania and federal law.

Notification

Notice is circulated to the entire campus community, through the dean of educational services, in the event of a serious security incident. Notices are placed in college mail boxes and are reported in the student newspaper. All crimes committed at Dickinson College are reported to the Carlisle Police Department.

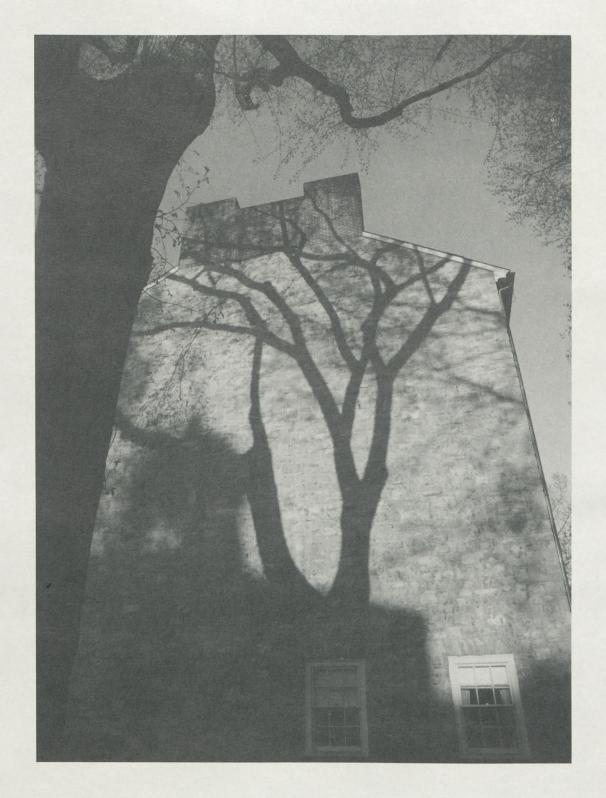
Campus Police

Six full-time uniformed and armed police officers report to Dickinson's director of security. Most are college graduates with a major in criminal justice. A psychological test and physical examination are required of all campus police officers in addition to the stipulated state police and Federal Bureau of Investigation fingerprint check. All campus police officers must attend the Lethal Weapons Training Course offered by Harrisburg Area Community College under Pennsylvania Act 235. They attend other short policerelated courses as they are available. Thirty days on the job are required before officers can work alone.

All campus police officers give daily reports to the Department of Physical Plant on security-related items after nightly rounds and checks of all campus facilities and grounds. The residential life staff also turns in requests for repairs to locks, doors, and windows, as well as for general maintenance.

Emergencies or suspicious incidents occurring on campus are reported most commonly by telephone. Emergency numbers are posted on all public telephones on the campus.

A summary of major and minor offenses which are known to Dickinson College Police during the most recent three-year period is available upon request by currently enrolled students, employees, and candidates who have submitted a formal application for admission to the College. To receive a copy, write to the admissions office or personnel office, Dickinson College, Carlisle, PA 17013.



198 References 1989-90 Catalogue

References

Directory 1989-1990

Board of Trustees

The date of first election to the Board of Trustees appears to the left of each board member's name. Information is correct as of April 1, 1989.

Officers

William S. Masland, B.A.

[†]Bruce R. Rehr, '50, B.A.

M. Charles Seller, '55, B.A., M.A.

Michael L. Britton,

Chairman

Vice Chairman

Secretary

B.A., M.Ed., Ph.D., M.B.A.

Peter J. Balcziunas, B.A.

Robert W. Belyea, B.A.

Assistant Treasurer

Assistant Treasurer

Members ex officio

- 1987 A. Lee Fritschler, B.A., M.P.A., Ph.D., *President of the College*, Carlisle, PA
- 1988 Earl D. Weiner, '60, B.A., LL.B., Chairman of the Board of Advisors; Partner, Sullivan & Cromwell, New York, NY

Emeritus Members

- 1948 Samuel W. Witwer, '30, Ph.B., J.D., L.H.D., S.J.D., LL.D., Senior Partner, Witwer, Burlage, Poltrock & Giampietro, Chicago, IL. Honorary President of the Board.
- 1961 Sherwood M. Bonney, '31, B.A., LL.B., Retired Executive, Johnson and Higgins; Phoenix, AZ
- 1982 Joseph D. Brenner, '39, Ph.B., M.B.A., Retired Chairman of the Board, AMP, Inc.; Carlisle, PA
- 1958 William S. Jenkins, '31, Ph.B., LL.B., Chairman of the Advisory Board, First National Bank of Maryland, Cumberland, MD
- 1945 Sidney D. Kline, '24, B.A., M.A., J.D., LL.D., Retired Chairman of the Board,

- American Bank & Trust Co. of PA; Reading, PA
- 1982 Carol Clendening Laise, B.A., M.A., LL.D., Retired Director General of the Foreign Service and Former U.S. Ambassador to Nepal; Washington, D.C.
- 1958 Edward G. Latch, '21, B.A., B.D., M.A., D.D., L.H.D., Retired Chaplain, U.S. House of Representatives; Gaithersburg, MD
- 1967 John Wesley Lord, '27, B.A., B.D., D.D., LL.D., S.T.D., H.H.D., Retired Bishop of the United Methodist Church; Lakeland, FL
- 1965 ^{††}James R. Shepley, '39, Litt.D., Retired President, *Time, Inc.*; Hartfield, VA
- 1974 Daniel J. Terra, B.S., Chairman, Lawter Chemicals, Inc., Northbrook, IL
- John B. Warman, B.A., B.D., M.Ed., D.D.,L.H.D., Retired Bishop of the United Methodist Church; Friendship, MD

Life Members

- 1967 Robert W. Chilton, '38, B.A., Business Consultant, Carlisle, PA
- 1959 John Milton Davidson, '33, B.A., M.Ed., Sales and Management Consultant, O'Haret Co. and C. D. Stewart Associates, Wayne, PA
- 1954 W. Gibbs McKenney, '39, Ph.B., J.D., LL.D., D.H.L., Senior Partner, McKenney, Thomsen & Burke, Baltimore, MD
- 1978 ***G. Wesley Pedlow, Jr., '34, B.S., M.S., Ph.D., Retired President, Trylon Chemicals, Inc.; Lock Haven, PA
- 1980 Wilbur M. Rabinowitz, '40, Ph.B., J.D., Retired President, J. Rabinowitz & Sons, Inc.; New York, NY
- 1958 Edward C. Raffensperger, '36, B.S., M.D., Professor of Medicine, Hospital of the University of Pennsylvania, Philadelphia, PA
- 1962 Boyd Lee Spahr, Jr., '32, B.A., LL.B., Senior Partner, Ballard, Spahr, Andrews & Ingersoll, Philadelphia, PA
- 1964 J. William Stuart, '32, B.A., Retired Chairman of the Executive Committee, Pfizer, Inc.; Hightstown, NJ
- 1975 William S. Thomas, '35, B.A., F.S.A., Retired Executive Vice President, Metropolitan Life Insurance Co.; Garden City, NY

[†]Died March 14, 1989

^{††}Died November 2, 1988

^{†††}Died May 20, 1988

- 1948 Robert A. Waidner, '32, B.A., LL.B., Chairman of the Board, Waidner Corp., Towson, MD
- 1966 Harry C. Zug, '34, B.A., M.B.A., Retired Partner, Coopers and Lybrand; Gladwyne, PA
- 1976 Thomas V. Zug, '33, Ph.B., LL.B., Retired Vice President for Trust Administration, Provident National Bank, Philadelphia; Gladwyne, PA

Term Expires 1989

- 1981 Robert M. Brasler '58, President, Binswanger Investment, Philadelphia, PA
- 1979 Sidney D. Kline, Jr., '54, B.A., LL.B., Attorney, Stevens & Lee, Reading, PA
- 1974 William S. Masland, B.A., Retired President,C. H. Masland & Sons; Carlisle, PA
- 1985 *Rosalyn K. Robinson, '68, B.A., J.D., Attorney, Governor's Office of General Counsel, Harrisburg, PA
- 1969 E. Donald Shapiro, '53, B.A., LL.B., The Joseph Solomon Distinguished Professor of Law, New York Law School, New York, NY
- 1975 Jack M. Stover, '70, B.A., J.D., Attorney, Shearer, Mette, Evans & Woodside, Harrisburg, PA
- 1979 John V. Thornton, B.S., LL.B., LL.D., Executive Vice President, Treasurer, and Chief Financial Officer, Columbia University, New York, NY
- 1976 Samuel W. Witwer, Jr., '63, B.A., LL.B., Partner, Witwer, Burlage, Poltrock & Giampietro, Chicago, IL
- 1985 Robert A. Worthington, '60, B.A., M.A., Executive Director for Governmental Affairs, Opus Corp., Minneapolis, MN

Term Expires 1990

- 1983 Mary Ann Spence Altman, '51, B.A., J.D., President, Altman & Weil, Inc., Ardmore, PA
- 1984 John Kent Cooke, Executive Vice President, The Redskins, Washington, D.C.
- 1986 *John C. Goodchild, Jr., '67, B.A., M.B.A., President and Chief Operating Officer, Weightman, Inc., Philadelphia, PA
- 1988 J. Bruce McKinney, '59, B.A., President and Chief Executive Officer, HERCO, Hershey, PA

- 1983 John F. Peters, '52, B.A., President, Peters Orchard, Gardners, PA
- 1971; Emil R. Weiss, '53, B.A., M.B.A., Partner,
- 1979 Weiss Pollack, Capital Management, Inc., Glen Ridge, NJ
- 1988 Robert J. Wise, '53, B.A., Retired President, Keypoint Corp., Berwick, PA

Term Expires 1991

- 1987 *Katharine E. Bachman, '75, B.A., J.D., Attorney, Hale & Dorr, Boston, MA
- 1986 Paulette Goerig Katzenbach, '68, B.A., Civic Leader, Los Angeles, CA
- 1983 Byron G. Quann, '61, B.A., Group Director, Account Marketing, IBM, White Plains, NY
- 1975 *Bruce R. Rehr, '50, B.A., President, Penn Square Management Corp., Reading, PA
- 1982 Otto E. Roethenmund, B.A., President, Inter-Nation Capital Management Corp., New York, NY
- 1986 Harry C. Rubicam, B.A., Retired Advertising and Promotions Executive, *Time, Inc.*; Old Greenwich, CT
- 1984 Ralph M. Whitticar III, B.A., J.D., Attorney, Fredericksburg, VA

Term Expires 1992

- 1984 Walter E. Beach, '56, B.A., M.A., Senior Staff Member, The Brookings Institution, Washington, D.C.
- 1977 Henry D. Clarke, Jr., '55, Chairman of the Board, Clabir Corp., Greenwich, CT
- John J. Curley, '60, B.A., M.S., Chairman, President and Chief Executive Officer, Gannett Company, Inc., Washington, D.C.
- 1988 *Rosalie Enders Dunkle, '50, B.A., Retired Secondary School Teacher; Harrisburg, PA
- 1980 John D. Hopper, '48, B.A., LL.B., J.D., Pennsylvania State Senator, Harrisburg, PA
- 1984 Constance W. Klages, '56, B.A., Partner, International Management Advisors, New York, NY
- 1982 Inge Paul Stafford, '58, B.A., M.A.T., M.A., Ed.D., Licensed Psychologist, Essex Fells, NJ

^{*}Alumni Trustee

[†]Died March 14, 1989

Faculty

The date of first appointment to the college appears in parentheses at the end of each individual's title(s). Information is correct as of April 1, 1989.

A. Lee Fritschler

President of the College, Lemuel T. Appold Foundation Chair (1987).

B.A., Union College, 1959; M.P.A., Syracuse University, 1960; Ph.D., 1965.

George Allan

Dean of the College, Russell I. Thompson Chair of the Dean of the College, Part-time Professor of Philosophy (1963).

B.A., Grinnell College, 1957; M.Div., Union Theological Seminary, 1960; Ph.D., Yale University, 1963. Lindback Award for Distinguished Teaching, 1968-69.

Faculty Emeriti

Faculty emeriti are listed according to the highest rank an individual achieved prior to his or her retirement, and then according to the year he or she achieved that rank. When more than one emeritus professor have the same rank at the time of retirement, and achieved that rank on the same date, they are listed according to the year each achieved his or her preceding rank.

William W. Edel

President of the College, Emeritus (1946).

B.A., Dickinson College, 1915; M.A., 1919; D.D., 1935; S.T.B., Boston University, 1921; L.H.D., Keuka College, 1944; D.D., Hobart College, 1944; LL.D., Gettysburg College, 1949; LL.D., University of Pennsylvania, 1949; D.Hu., Boston University, 1950; J.U.D., Lebanon Valley College, 1956; F.I.A.L., 1959.

Howard L. Rubendall

President of the College, Emeritus (1961).

B.A., Dickinson College, 1931; D.D., 1945; M.Div.,
Union Theological Seminary, 1937; L.H.D., Trinity
College, 1957; LL.D., University of Pennsylvania,
1966; LL.D., Dickinson School of Law, 1966.

George Shuman, Jr.

Vice-President Emeritus (1935).

Ph.B., Dickinson College, 1937; LL.D., Lycoming College, 1958.

Wellington A. Parlin

Professor Emeritus of Physics (1930).

B.A., Simpson College, 1921; M.S. University of Iowa, 1922; Ph.D., Johns Hopkins University, 1929.

Frank Ayres, Jr.

Susan Powers Hoffman Professor Emeritus of Mathematics (1928).

B.S. Washington College, 1921; M.S. University of Chicago, 1927; Ph.D., 1938.

William D. Gould

George Henry and Bertha Curry Ketterer Professor Emeritus of Philosophy and Religion (1937).

B.A., Wesleyan University, 1919; B.D., Garrett Biblical Institute, 1922; Ph.D., Boston University, 1929.

Benjamin D. James

Richard V. C. Watkins Professor Emeritus of Psychology and Education (1941).

B.A., Dickinson College, 1934; M.A. Bucknell University, 1936; Ph.D., University of Pennsylvania, 1962; LL.D., Dickinson School of Law, 1976.

Milton E. Flower

Robert Blaine Weaver Professor Emeritus of Political Science (1947).

B.A., Dickinson College, 1931; M.A., Columbia University, 1938; Ph.D., 1946.

Henry L. Yeagley

Joseph Priestley Professor Emeritus of Natural Philosophy, Professor Emeritus of Physics and Astronomy (1958).

B.S., Pennsylvania State University, 1925; M.S., 1927; Ph.D., 1934.

Joseph H. Schiffman

James Hope Caldwell Professor Emeritus of American Studies and Professor Emeritus of English (1958). B.A., Long Island University, 1937; M.A., Columbia

University, 1947; Ph.D., New York University, 1951. Lindback Award for Distinguished Teaching, 1961-62.

Howard C. Long

Joseph Priestley Professor Emeritus of Natural Philosophy, Professor Emeritus of Physics (1959).

B.A., Northwestern University, 1941; Ph.D., Ohio State University, 1948. *Lindback Award for Distinguished Teaching*, 1975-76.

William R. Bowden

Thomas Beaver Professor Emeritus of English Literature (1948).

B.A., Haverford College, 1935; M.A., Duke University, 1937; Ph.D., Yale University, 1948. *Lindback Award for Distinguished Teaching*, 1974-75.

Caroline H. Kennedy

Professor Emerita of Modern Languages (1948). B.A., Birmingham-Southern College, 1926; M.A., Alabama University, 1930; Docteur D'Université, Universite Laval, 1942.

[†]W. Wright Kirk

Professor Emeritus of Modern Languages (1946). B.A., University of Delaware, 1930; M.A., Middlebury College, 1935; Ph.D., University of Illinois, 1955.

Paul F. M. Angiolillo

Charles A. Dana Professor Emeritus of Languages and Literatures (1962).

B.A., Columbia University, 1938; M.A., 1939; Ph.D., 1946; Postdoctoral Studies, University of Geneva, 1946-47; Officer d'Académie, 1956; Officer des Palmes Académiques, 1961. Lindback Award for Distinguished Teaching, 1964-65. Ganoe Award for Inspirational Teaching, 1974-75.

Francis W. Warlow

Professor Emeritus of English (1947). B.A., Johns Hopkins University, 1931; M.A., University of Pennsylvania, 1946; Ph.D., 1959.

Roger E. Nelson

Professor Emeritus of Mathematics (1949). B.S., U.S. Naval Academy, 1922; M.S., Dartmouth College, 1946.

Ray H. Crist

Professor Emeritus of Chemistry (1963). B.A., Dickinson College, 1920; Sc.D., 1960; M.A., Columbia University, 1922; Ph.D., 1926.

†Died June 29, 1988

Warren J. Gates

Robert Coleman Professor Emeritus of History (1951). B.A., Duke University, 1941; M.A., University of Pennsylvania, 1947; Ph.D., 1951.

Richard M. Sia

Professor Emeritus of Physics (1954). B.S., Northwestern University, 1928; M.S., University of Chicago, 1932.

Richard H. Wanner

Professor Emeritus of Psychology (1946; 1961). B.A., Franklin and Marshall College, 1939; Ed.M., Harvard University, 1940; Ed.D., 1968.

Henry J. Young

Charles A. Dana Professor Emeritus of History (1957). B.A., Franklin and Marshall College, 1932; Ph.D., Johns Hopkins University, 1955.

Daniel J. McDonald

Professor Emeritus of Biology (1956). B.S., Siena College, 1950; M.A., Columbia University, 1952; Ph.D., 1955.

Marianna Bogojavlensky

Professor Emerita of German and Russian Language and Literature (1963).

M.A., University of Helsinki, 1939; Ph.D., University of Pennsylvania, 1959. Lindback Award for Distinguished Teaching, 1972-73. Ganoe Award for Inspirational Teaching, 1977-78.

William H. Wishmeyer

Professor Emeritus of English (1957). B.A., Johns Hopkins University, 1948; M.A., 1949; Ph.D., University of Pennsylvania, 1957.

David F. Brubaker

Professor Emeritus of Drama (1956). B.A., Franklin and Marshall College, 1948. Lindback Award for Distinguished Teaching, 1967-68.

Barbara B. McDonald

Professor Emerita of Biology (1956). B.S., Simmons College, 1948; M.A., Columbia University, 1955; Ph.D., 1957.

Peter E. Martin

Professor Emeritus of Mathematics and Computer Science (1965).

B.A., Yale University, 1950; M.A., Harvard University, 1951; Ph.D., 1958; Diploma in Comp. Sci., University of Cambridge, 1979.

John H. Light

Professor Emeritus of Mathematics (1959). B.S., Lebanon Valley College, 1948; M.S. in Physics, Pennsylvania State University, 1950; M.S. in Engr. Mech., 1957.

Ralph L. Slotten

Professor Emeritus of Religion (1966). B.A., Drake University, 1948; B.D., 1951; M.A., University of Chicago, 1958; Ph.D., 1966.

Herbert Royce

Associate Professor Emeritus of Modern Languages (1959).

Dr. rer. pol., University of Königsberg, 1926.

Donald R. Seibert

Associate Professor Emeritus of Physical Education (1957).

B.S., George Washington University, 1943; M.A., Columbia University, 1950.

Joseph G. DuCharme

Associate Professor Emeritus of Physical Education (1955).

B.S. in P.E., Ithaca College, 1948; M.A. in P.E., New York University, 1951.

Yates M. Forbis

Associate Professor Emeritus of Library Resources (1965).

B.S., Appalachian State Teachers College, 1951; M.A., 1955; M.S. in L.S., Columbia University, 1960.

John L. King

Associate Professor Emeritus of Accounting (1959). B.A., Princeton University, 1948; M.A., University of Denver, 1950. Ganoe Award for Inspirational Teaching, 1971-72; 1982-83.

H. Wade Seaford, Ir.

Associate Professor Emeritus of Anthropology (1961). B.A., Wheaton College, 1946; Graduate Studies, Escuela Nacional de Antropologia e Historia Mexico, 1948-50; M.A., Harvard University, 1964; Ph.D., 1971.

Cordelia M. Neitz

Associate Professor Emerita of Library Resources (1963). B.S. in L.S., Syracuse University, 1931; M.S. in Ed., Temple University, 1968.

[†]Alfred N. Hartshorn

Associate Professor Emeritus of English (1958). B.A., University of Rochester, 1932; M.A., 1957.

Kathleen W. Barber

Physical Educator Emerita (1960). B.A., Syracuse University, 1947.

Andrés Suris

Associate Professor Emeritus of Spanish (1973). Licenciado en Derecho, Universidad de Barcelona, 1941; M.A., University of Minnesota, 1968; Ph.D., 1972.

Marcia B. Conner

Associate Professor Emerita of English (1964). B.A., Cornell College, 1947; M.A., Columbia University, 1949.

Lee Ann Wagner

Physical Educator Emerita (1952; 1966). B.S., Pennsylvania State University, 1948.

Isingard M. Woodworth

Assistant Professor Emerita of Library Resources (1969). B.A., University of California at Berkeley, 1968; M.L.S., 1969; M.A., Pennsylvania State University, 1977.

Martha C. Slotten

Librarian and College Archivist Emerita (1974). B.A., Earlham College, 1943; M.A., University of Wisconsin, 1950; M.A., Shippensburg State University, 1981.

[†]Died February 19, 1989

Teaching Faculty

The date of first appointment to the College appears in parentheses at the end of each individual's title(s). Information is correct as of April 1, 1989.

***Dennis P. Akin

Professor of Fine Arts (1969).

B.F.A., University of Kansas, 1956; M.F.A., University of Colorado, 1958. *Lindback Award for Distinguished Teaching*, 1976-77.

George Allan

Part-time Professor of Philosophy, Dean of the College, Russell I. Thompson Chair of the Dean of the College (1963).

B.A., Grinnell College, 1957; M.Div., Union Theological Seminary, 1960; Ph.D., Yale University, 1963; Lindback Award for Distinguished Teaching, 1968-69.

Christopher L. Anderson

Assistant Professor of Spanish (1983). B.A., Valparaiso University, 1973; M.A., 1975; Ph.D., Indiana University, 1982.

Bruce R. Andrews

Professor of Political Science (1960). B.A., Syracuse University, 1950; Ph.D., 1961.

Lee W. Baric

Professor of Mathematics (1964). B.S. Dickinson College, 1956; M.S., Lehigh University, 1961; Ph.D., 1966.

***Charles A. Barone

Associate Professor of Economics (1975). B.A., American University, 1971; Ph.D., 1978.

Nancy Baun

Part-time Instructor in Applied Music (1987). B.A., New School of Music, 1983.

Nancy H. Baxter

Associate Professor of Mathematics and Computer Science (1980).

B.A., Douglass College, 1968; Ph.D., Rutgers University, 1978.

Catherine A. Beaudry

Assistant Professor of French, Director of the Dickinson Study Center in Toulouse, 1989-91 (1987). B.A., Catholic University, 1975; M.A., Columbia

B.A., Catholic University, 1975; M.A., Columbia University, 1980; M. Phil., 1985; Ph.D., 1987.

Daniel R. Bechtel

Professor of Religion (1964).

B.A., Franklin and Marshall College, 1954; B.D., Yale University, 1958; Ph.D., Drew University, 1964. Lindback Award for Distinguished Teaching, 1969-70.

William K. Bellinger

Assistant Professor of Economics (1981).

B.A., Michigan State University, 1972; M.S., Cornell University, 1975; Ph.D., Northwestern University, 1985.

Elizabeth E. Bennett

Instructor in English (1989).

B.A., Clark University, 1984; M.A., University of Rochester, 1986.

Gordon S. Bergsten

Assistant Professor of Economics (1984). B.A., University of Washington, 1963; M.A., University of California at Berkeley, 1965; Ph.D., 1977.

Paul J. Biebel

Professor of Biology (1963).

B.S., University of Notre Dame, 1949; M.S., St. Louis University, 1955; Ph.D., Indiana University, 1963.

Harry F. Booth

Thomas Bowman Professor of Religion (1964). B.A., Harvard College, 1949; S.T.B., Boston University, 1952; Ph.D., 1963. Lindback Award for Distinguished Teaching, 1966-67. Ganoe Award for Inspirational Teaching, 1970-71, 1987-88.

Kristen S. Borré

Instructor in Anthropology (1988).

B.A., Johns Hopkins University, 1973; M.A., University of North Carolina at Chapel Hill, 1979.

Russell Bova

Assistant Professor of Political Science (1982). B.A., State University of New York at Buffalo, 1977; M.A., Indiana University, 1980; Ph.D., 1985.

^{***}On leave Second Semester 1989-90.

Robert J. Boyle

Assistant Professor of Physics and Astronomy (1981). B.A., Princeton University, 1971; M.Phil., Yale University, 1976; Ph.D., 1981.

James A. Boytim

Assistant Professor of Psychology (1980).

B.S., Indiana University of Pennsylvania, 1959; M.S.Ed., Temple University, 1965; M.Ed., Indiana University of Pennsylvania, 1966; Ed.D., Indiana University at Bloomington, 1971. *Ganoe Award for Inspirational Teaching*, 1985-86.

Anita R. Brandon

Part-time Instructor in Woodwinds (1976). B.M., Ithaca College, 1968; M.M., University of Arizona, 1972.

Thomas M. Brennan

Associate Professor of Biology (1978). B.S., University of Illinois, 1965; M.S., Rutgers University, 1975; Ph.D., 1977.

Keith H. Brower

Assistant Professor of Spanish and Portuguese (1986). B.A., Salisbury State College, 1979; M.A., Pennsylvania State University, 1981; Ph.D., 1985.

Beth A. Bullard

Artist Faculty in Music, Director of Chamber Music (1968).

B.A., Oberlin College, 1960; M.A., Harvard University, 1963; Ph.D., University of Pennsylvania, 1987.

Truman C. Bullard

Professor of Music, Director of the Chamber Choir, (1965).

B.A., Haverford College, 1960; M.A., Harvard University, 1963; Ph.D., University of Rochester, 1971. Lindback Award for Distinguished Teaching, 1970-71.

Roselee Bundy

Assistant Professor of Japanese Language and Literature (1985).

B.A., University of Chicago, 1973; M.A., 1975; Ph.D., 1984.

James W. Carson

Associate Professor of History (1956). B.S., Miami University, 1948; M.A., 1951.

Sylvia G. Carullo

Assistant Professor of Spanish (1986). Instituto Superior del Profesorado "Del Carmen," 1972; M.A., State University of New York at Buffalo, 1983; Ph.D., 1988.

Robert W. Cavenagh, Jr.

Part-time Associate Professor of Fine Arts and Education, Director of Instructional Media (1972). B.A., Princeton University, 1965; M.Ed., University of Virginia, 1970; Ph.D., Indiana University, 1988.

Walter Chromiak

Associate Professor of Psychology (1979). B.A., Temple University, 1974; Ph.D., 1979.

David Commins

Assistant Professor of History (1987). B.A., University of California at Berkeley, 1976; Ph.D., University of Michigan, 1985.

Stephen B. Coslett

Professor of Psychology (1960). B.S., University of Pittsburgh, 1953; M.A., University of Denver, 1957; Ph.D., 1960.

Daniel G. Cozort

Instructor in Religion (1988).

B.A., Brown University, 1976; M.A., University of Virginia, 1983.

Patrick R. Craven

Assistant Professor of French (1986). B.A., Kent State University, 1972; M.A., Rice University, 1976; Ph.D., 1983.

Iona D. Crook

Instructor in History (1989). B.A., Peking University, 1982; M.A., Yale University, 1984; M.Phil., 1986.

Dorothy W. Culp

Associate Professor of English (1970). B.A., Muskingum College, 1952; M.A., University of Pennsylvania, 1956; Ph.D., Columbia University, 1967.

John R. Dabrowski

Assistant Professor of Military Science (1986). B.A., East Stroudsburg University, 1977; M.A., 1981. Captain, Infantry, U.S. Army.

Sylvie G. Davidson

Associate Professor of Romance Languages (1979). Licence-ès-Lettres, Université de Montpellier, 1967; Maitrise d'Italien, 1968; Doctorat de Troisieme Cycle, 1978.

Carol M. Derrickson

Instructor in East Asian Studies (1981). B.A., Carleton College, 1967; M.A., University of Pennsylvania, 1977.

**Barbara A. Diduk

Associate Professor of Fine Arts (1980). B.A., College of William and Mary, 1973; M.F.A., University of Minnesota, 1978.

Thomas L. Drucker

Assistant Professor of Mathematics (1986). B.A., Princeton University, 1975; M.A., University of Toronto, 1977.

Cyril W. Dwiggins

Associate Professor of Philosophy (1970). B.A. Aquinas Institute, 1955; M.A., 1956; Ph.D. Northwestern University, 1978.

John R. Eaken

Part-time Instructor in Strings (1979). B.A., Messiah College, 1972; M.M., Temple University, 1974.

Beverley D. Eddy

Associate Professor of German (1973;1983). B.A., College of Wooster, 1962; M.A., Indiana University, 1964; Ph.D., 1970.

Debra S. Egolf

Assistant Professor of Chemistry (1988). B.S., Lebanon Valley College, 1983; Ph.D., Pennsylvania State University, 1988. (1988-89)

Larry A. Engberg

Associate Professor of Psychology (1973). B.S., Montana State University, 1968; M.A., University of Colorado, 1972; Ph.D., 1973.

Kjell I. Enge

Assistant Professor of Anthropology (1984). B.A., Northeastern University, 1964; Ph.D., Boston University, 1981.

Stephen E. Erfle

Assistant Professor of Economics (1989). B.S., University of California at Davis, 1977; B.A., 1977; M.A., Harvard University, 1981; Ph.D., 1983.

Susan M. Feldman

Associate Professor of Philosophy (1980). B.A., Case Western Reserve University, 1974; M.A., 1976; M.A., University of Rochester, 1978; Ph.D., 1980.

R. Leon Fitts

Professor of Classical Studies (1972).

B.A., Baylor University, 1963; M.A., University of Georgia, 1967; Ph.D., Ohio State University, 1971.

Ganoe Award for Inspirational Teaching, 1976-77.

Marjorie A. Fitzpatrick

Part-time Associate Professor of French, Administrative Coordinator for Internships (1975; 1980). B.A., College of Our Lady of the Elms, 1957; M.A., Smith College, 1959; Ph.D., University of Toronto, 1968.

Arturo A. Fox

Professor of Spanish, Director of the Dickinson Semester/ Year Program in Málaga, 1988-90 (1966). Bachelor of Letters and Sciences, The Friends School, Instituto Pre-universitario de Holguin, Cuba, 1952; Doctor en Derecho, University of Havana, 1960; Ph.D., University of Minnesota, 1971. Lindback Award for Distinguished Teaching, 1980-81.

Michael J. Fratantuono

Assistant Professor of Economics (1988). B.A., Brown University, 1974; M.A., University of Rhode Island, 1982; Ph.D., University of Washington, 1988.

George Friedman

Professor of Political Science (1974). B.A., City College of New York, 1970; M.A., Cornell University, 1973; Ph.D., 1976.

A. Lee Fritschler

Part-time Professor of Political Science, President of the College, Lemuel T. Appold Foundation Chair (1987). B.A., Union College, 1959; M.P.A., Syracuse University, 1960; Ph.D., 1965.

206 References

^{**}On leave First Semester 1989-90.

Clarke Garrett

Charles A. Dana Professor of History (1965).
B.A., Carleton College, 1956; M.S., University of Wisconsin, 1957; Ph.D., 1961. Lindback Award for Distinguished Teaching, 1982-83.

Margaret D. Garrett

Part-time Assistant Professor of English, Associate Dean of the College (1976).

B.A., Illinois State University, 1957; M.A., Northwestern University, 1971; Ph.D., George Washington University, 1978.

Judy S. Gill

Instructor in English (1984).

B.A., University of Arizona, 1965; M.A., Cornell University, 1969.

Philip T. Grier

Associate Professor of Philosophy (1980). B.A., Swarthmore College, 1964; M.A., Balliol College, Oxford, 1966; Ph.D., University of Michigan, 1972.

Carl A. Guerriero

Assistant Professor of Education (1985). B.S., Lock Haven University, 1957; M.Ed., Pennsylvania State University, 1961; D.Ed., 1971.

Nathaniel Gunod

Part-time Instructor in Guitar (1984).

B.M., Peabody Conservatory of Music of Johns Hopkins University, 1980; M.M., 1985.

*Henry W.A. Hanson III

Associate Professor of Geology (1966). B.S., University of Alaska, 1960; M.S., Pennsylvania State University, 1965; Ph.D., 1968.

William A. Harms

Associate Professor of English (1968). B.A., Hope College, 1961; M.A., Michigan State University, 1963; Ph.D., Indiana University, 1971.

Helen Harrison

Instructor in French (1989). B.A., University of Virginia, 1981; M.A., Columbia University, 1984; M.Phil., 1987.

*On leave 1989-90.

Frank R. Hartman

Associate Professor of Psychology (1960). B.S., Pennsylvania State University, 1953; M.S., 1955; Ph.D., 1957.

David A. Hastings

Assistant Professor of Mathematics and Computer Science (1988).

B.S., University of Massachusetts, 1967; M.A., 1972; Ph.D., 1977.

John S. Henderson

Part-time Associate Professor of French, Director of Off-Campus Studies (1966).

B.A., Bates College, 1961; M.A., Brown University, 1963; Ph.D., 1966.

John H. Henson

Instructor in Biology (1989).

B.A., University of Virginia, 1979; M.S., Florida State University, 1983.

Eugene W. Hickok, Jr.

Assistant Professor of Political Science (1980). B.A., Hampden-Sydney College, 1972; M.A., University of Virginia, 1978; Ph.D., 1983. Ganoe Award for Inspirational Teaching, 1984-85.

Ann M. Hill

Assistant Professor of Anthropology (1986). B.A., Columbia University, 1971; M.A., University of Iowa, 1974; Ph.D., University of Illinois, 1982.

Jane C. Hill

Associate Professor of Computer Science (1988). B.A., Western Maryland College, 1954; M.A., University of Massachusetts, 1979; Ph.D., 1982.

Sharon L. Hirsh

Professor of Fine Arts (1974).

B.A., Rosemont College, 1970; M.A., University of Pittsburgh, 1971; Ph.D., 1974. Ganoe Award for Inspirational Teaching, 1981-82.

James M. Hoefler

Assistant Professor of Political Science (1989). B.S., Syracuse University, 1977; M.A., State University of New York at Buffalo, 1987; Ph.D., 1988.

A. Craig Houston

Professor of Economics (1956).

B.A., Pennsylvania State University, 1951; Graduate School for English Speaking Students, University of Stockholm, 1952; Ph.D., Pennsylvania State University, 1962.

Debra M. Israel

Assistant Professor of Fine Arts (1985). B.A., Pennsylvania State University, 1972; M.A., 1975; Ph.D., Bryn Mawr College, 1984.

***Marvin Israel

Associate Professor of Sociology (1968). B.A., City College of New York, 1959.

Charles A. Jarvis

Professor of History (1969).

B.A., DePauw University, 1963; M.A., University of Missouri, 1964; Ph.D., 1969; Diploma de Lengua y Cultura Hispanicas, University of Málaga, 1986.

Grace L. Jarvis

Senior Lecturer in Spanish (1972). B.A., DePauw University, 1966; M.A., University of Missouri, 1969.

William B. Jeffries

Charles A. Dana Professor of Biology (1959). B.S., University of Pittsburgh, 1949; M.A., University of North Carolina, 1952; Ph.D., 1955. Lindback Award for Distinguished Teaching, 1964-65. Ganoe Award for Inspirational Teaching, 1975-76.

Alfred T. Jelinek

Assistant Professor of Military Science (1989). B.S., United States Military Academy, 1980; M.B.A., Columbus College, 1984. Captain, Field Artillery, U.S. Army.

Jeremy H. Jernegan

Assistant Professor of Fine Arts (1988). B.A., San Francisco State University, 1983; M.A., San Jose State University, 1986; M.F.A., 1987.

*On leave 1989-90.

Gail P. Jones

Part-time Instructor in Applied Music (1984). B.S., Lebanon Valley College, 1976; M.S., Temple University, 1983.

Janet W. Jones

Part-time Instructor in Geology (1984). B.S., Dickinson College, 1973.

John W. Jones

Part-time Instructor in Applied Music (1982). B.S., Lebanon Valley College, 1972; M.Ed., Towson State University, 1975.

James E. Jurgenson

Assistant Professor of Biology (1985). B.S., University of Minnesota, 1972; M.S., University of Arizona, 1974; Ph.D., 1980.

Vytautas M. Kavolis

Charles A. Dana Professor of Comparative Civilizations and Professor of Sociology (1964). B.A., University of Wisconsin, 1952; M.A., Harvard University, 1956; Ph.D., 1960.

David A. Kell

Assistant Professor of Chemistry (1988). B.S., Gannon College, 1979; Ph.D., Pennsylvania State University, 1987. (1988-89)

Marcus M. Key, Jr.

Assistant Professor of Geology (1989). B.S., University of Texas at Austin, 1983; M.Phil., Yale University, 1986; Ph.D., 1989.

*Michael B. Kline

Professor of French (1968).

B.A., Rutgers University, 1961; M.A., Brown University, 1962; Ph.D., 1971. Lindback Award for Distinguished Teaching, 1979-80.

*Rebecca R. Kline

Senior Lecturer in French (1977). B.A., Dickinson College, 1973; M.A., New York University, 1975.

Sinan Koont

Assistant Professor of Economics (1986). B.A., Park College, 1963; M.S., University of Arkansas, 1966; Ph.D., University of Wisconsin at Madison, 1972; Ph.D., University of Massachusetts, 1987.

^{***}On leave Second Semester 1989-90.

David L. Kranz

Associate Professor of English (1979).

B.A., Princeton University, 1964; M.A., University of California at Berkeley, 1971; Ph.D., 1977.

Harry D. Krebs

Associate Professor of East Asian Studies (1972). B.A., University of Nebraska, 1963; M.A., Temple University, 1974; Ph.D., 1978. Lindback Award for Distinguished Teaching, 1987-88.

Richard M. Lane

Associate Professor of Biology (1967). B.S., Loyola College, 1959; M.S., University of Maryland, 1963; Ph.D., 1969.

Kenneth L. Laws

Professor of Physics (1962).

B.S., California Institute of Technology, 1956; M.S., University of Pennsylvania, 1958; Ph.D., Bryn Mawr College, 1962.

Priscilla W. Laws

Professor of Physics (1965).

B.A., Reed College, 1961; M.A., Bryn Mawr College, 1963; Ph.D., 1966.

Marie-Dominique LeMillour-Macoy

Instructor in French (1988).

Licence d'Enseignement d'Anglais, University of Paris, 1975; Licence d'Enseignement de Lettres Modernes, 1976; Diplome de Bibliothecaire, University of Lyon, 1980. (1988-89)

Robert E. Leyon

Associate Professor of Chemistry (1969).

B.A., Williams College, 1958; M.A., Princeton University, 1960; Ph.D., 1962.

Philip N. Lockhart

Professor of Classical Languages, Asbury J. Clarke Chair of Latin (1963).

B.A., University of Pennsylvania, 1950; M.A., University of North Carolina, 1951; Ph.D., Yale University, 1959. *Ganoe Award for Inspirational Teaching*, 1968-69, 1972-73, 1980-81.

Carol C. Loeffler

Instructor in Biology (1988). B.A., Smith College, 1982.

John W. Luetzelschwab

Professor of Physics (1968).

B.A., Earlham College, 1962; M.A., Washington University, 1968; Ph.D., 1968.

Stephen C. MacDonald

Part-time Assistant Professor of History, Associate Dean of the College (1988).

B.A., Tufts University, 1969; Ph.D., University of Virginia, 1977.

Gisela Roethke-Makemson

Assistant Professor of German (1985). B.A., Washington State University, 1969; M.A., 1970; Ph.D., Harvard University, 1988.

Lonna M. Malmsheimer

Professor of American Studies (1975).

B.A., Pennsylvania State University, 1962; M.A., 1965; Ph.D., University of Minnesota, 1973. Lindback Award for Distinguished Teaching, 1986-87.

Enrique J. Martinez-Vidal

Professor of Romance Languages (1965). M.A., Temple University, 1960; Ph.D., University of Pennsylvania, 1970.

Valentina Marusanova

Visiting International Scholar (1988). Smolensk Pedagogical Institute, 1956; Lenin Pedagogical Institute, 1964. (1988-89)

Trevor L. McClymont

Lecturer in Financial and Business Analysis (1983). B.A., Andrews University, 1967; M.B.A., 1980.

Nancy C. Mellerski

Associate Professor of French (1977).

B.A., State University of New York at Binghamton, 1966; M.A., University of Toronto, 1968; Ph.D., University of Chicago, 1980.

Gregory A. Miller

Assistant Professor of Military Science (1988). B.S., West Chester University, 1966; M.Ed., Western Maryland College, 1970. Captain, Field Artillery, U.S. Army.

Kathleen W. Moffat

Assistant Professor of English (1984). B.A., Yale University, 1977; M.A., 1979; M.Phil., 1981, Ph.D., 1986.

Mary E. Moser

Associate Professor of Classical Studies (1982). B.A., Dickinson College, 1972; Ph.D., University of Pennsylvania, 1982. Ganoe Award for Inspirational Teaching, 1986-87.

Wolfgang Müller

Associate Professor of German (1981). Staatsexamen, Humboldt University, East Berlin, 1972; M.A., University of Wisconsin, 1976; Ph.D., 1983.

*Robert D. Ness

Associate Professor of English (1981). B.A., Lehigh University, 1966; Ph.D., University of North Carolina, 1981.

Carmen G. Neuberger

Part-time Assistant Professor of Education, Dean of Educational Services and Student Affairs (1987). B.S., University of Maryland, 1955; M.Ed., American University, 1973; Ed.D., 1977; J.D., 1983.

B. Ashton Nichols

Assistant Professor of English (1988). B.A., University of Virginia, 1975; M.A., 1979; Ph.D., 1984.

Susan F. Nichols

Part-time Instructor in Fine Arts, Associate Dean of the College (1977).

B.A., University of Iowa, 1960; M.A., 1967.

Jeffrey W. Niemitz

Associate Professor of Geology (1977). B.A., Williams College, 1972; Ph.D., University of Southern California, 1977.

K. Robert Nilsson

Robert Blaine Weaver Professor of Political Science (1962).

B.A., Temple University, 1951; M.A., Johns Hopkins University, 1957; Ph.D., Columbia University, 1964. Certificate of the Institute on International and Comparative Law, 1974. *Lindback Award for Distinguished Teaching*, 1963-64.

Sharon J. O'Brien

Professor of English and American Studies (1975). B.A., Radcliffe College, 1967; M.A., Harvard University, 1969; Ph.D., 1975. Lindback Award for Distinguished Teaching, 1985-86.

Robert M. Olmstead

Writer-in-Residence (1985). B.A., Syracuse University, 1977; M.A., 1983.

John M. Osborne

Associate Professor of History (1979). B.A., Rice University, 1974; M.A., Stanford University, 1976; Ph.D., 1979.

Tatiana Osipovich

Assistant Professor of Russian (1985). B.A., Pedagogical Institute, Archangelsk, 1974; M.A., University of Pittsburgh, 1982; Ph.D., 1989.

Pong-Hi Park

Senior Artist Faculty in Piano (1969). B.A., Seoul National University, 1965; M.A., Peabody Conservatory of Music, 1966; Artist Diploma, 1967.

*E. Robert Paul

Associate Professor of Computer Science and the History of Science (1976).

B.S., Brigham Young University, 1966; M.S., 1971; M.A., Indiana University, 1974; Ph.D., 1976.

Desmond N. Penny

Part-time Visiting Assistant Professor of Physics (1989). B.S., University College at Cork, 1971; M.S., 1972; Ph.D., University of Utah, 1975.

Chervl D. Perrotta

Assistant Professor of Chemistry (1988). B.S., Shippensburg University, 1982; M.S., Hood College, 1984; Ph.D., Pennsylvania State University, 1988.

Scott W. Petersen

Instructor in Geology (1988). B.S., Western Washington University, 1979; M.S., University of Oregon, 1982.

^{*}On leave 1989-90.

Fred C. Petty

Associate Professor of Music (1971).

B.M., Texas Christian University, 1961; M.A., Cornell University, 1964; Ph.D., Yale University, 1971.

Ronald Pirog

Part-time Assistant Professor of German, Associate Director of Off-Campus Studies (1987).

B.A., University of New Hampshire, 1966; M.A., 1968; Ph.D., University of North Carolina at Chapel Hill, 1983.

**Harold L. Pohlman

Associate Professor of Political Science (1983). B.A., University of Dayton, 1974; Ph.D., Columbia University, 1982.

*J. Forrest Posey, Jr.

Associate Professor of Music (1962).

B.M., Hardin-Simmons University, 1951; M.M., University of Texas, 1954; M.A., Harvard University, 1962.

*Noel Potter, Jr.

Professor of Geology (1969).

B.A., Franklin and Marshall College, 1961; M.A., Dartmouth College, 1963; Ph.D., University of Minnesota, 1969. *Lindback Award for Distinguished Teaching*, 1978-79.

Beatriz C. Quintero

Part-time Instructor in Spanish (1977). B.A., University of Puerto Rico, 1962.

Thomas L. Reed, Jr.

Associate Professor of English (1977). B.A., Yale University, 1969; M.A., University of Virginia, 1971; Ph.D., 1978.

George N. Rhyne

Associate Professor of History (1965). B.A., Davidson College, 1961; M.A., University of North Carolina, 1963; Ph.D., 1968.

Daniel K. Richter

Assistant Professor of History (1985).

B.A., Thomas More College, 1976; M.A., Columbia University, 1977; M. Phil., 1979; Ph.D., 1984.

*David A. Robertson

Part-time Associate Professor of Fine Arts, Gallery Director (1982).

B.A., University of Missouri, 1973; M.A., 1976; Ph.D., University of Pennsylvania, 1983.

**Kim L. Rogers

Associate Professor of History (1983).

B.A., Florida State University, 1973; M.A., University of Minnesota, 1976; Ph.D. 1982.

Dieter J. Rollfinke

Professor of German (1964).

B.S., Rensselaer Polytechnic Institute, 1963; M.A., Columbia University, 1966; Ph.D., Johns Hopkins University, 1977. *Lindback Award for Distinguished Teaching*, 1981-82.

*Gerald C. Roper

Professor of Chemistry (1962).

A.A., Boston University, 1953; B.A., 1956; Ph.D., 1966. Ganoe Award for Inspirational Teaching, 1979-80.

Susan D. Rose

Assistant Professor of Sociology (1984).

B.A., Dickinson College, 1977; M.A., Cornell University, 1982; Ph.D., 1984.

Kenneth M. Rosen

Professor of English (1969).

B.A., Cornell University, 1959; M.A., San Francisco State University, 1964; Ph.D., University of New Mexico, 1969; Diploma de Lengua y Cultura Hispanicas, University of Málaga, 1986.

S. Ned Rosenbaum

Associate Professor of Religion and Classics (1970). B.A., Tulane University, 1961; M.A., Brandeis University, 1967; Ph.D., 1974.

Amy Rosser

Part-time Instructor in Harpsichord (1985). B.M., Peabody Conservatory of Music of Johns Hopkins University, 1980; M.M., 1984.

^{*}On leave 1989-90.

^{**}On leave First Semester 1989-90.

J. Mark Ruhl

Associate Professor of Political Science (1975). B.A., Dickinson College, 1970; M.A., Syracuse University, 1972; Ph.D., 1975.

Cindy Samet

Assistant Professor of Chemistry (1988). B.S., Dickinson College, 1982; Ph.D., University of Virginia, 1988.

Claudette Sartiliot

Assistant Professor of French (1989). Licence en philologie germanique, Universite de Liege, 1969; M.A., University of Saskatchewan, 1976; Ph.D., University of California at Irvine, 1986.

William R. Schearer

Associate Professor of Chemistry (1968). B.S., Ursinus College, 1957; M.A., Princeton University, 1959; Ph.D., 1963.

Helen R. Segall

Associate Professor of Russian (1976). B.S., Simmons College, 1954; Ph.D., Bryn Mawr College, 1974.

Scott Shattuck

Assistant Professor of Dramatic Arts (1988). B.A., Colorado State University, 1983; M.F.A., University of Texas at Austin, 1988.

Richard M. Sheeley

Associate Professor of Chemistry (1969). B.S., University of Utah, 1957; M.S., Pennsylvania State University, 1959; Ph.D., Brigham Young University, 1964.

*Robert D. Sider

Charles A. Dana Professor of Classical Languages (1968).

B.A., University of Saskatchewan, 1955; M.A., 1956; B.A., Oxford University, 1958; M.A., 1964; Ph.D., 1965. Lindback Award for Distinguished Teaching, 1973-74. Ganoe Award for Inspirational Teaching, 1978-79.

James A. Skelton

Associate Professor of Psychology (1981). B.A., Washington & Lee University, 1976; Ph.D., University of Virginia, 1981.

†Died July 29, 1988.

**Brenda J. Smith

Senior Artist Faculty in Voice (1983). B.M., University of Evansville, 1973; M.M., Westminster Choir College, 1980.

Gregory J. Smith

Associate Professor of Psychology (1981). B.A., Plymouth State College, 1977; M.A., State University of New York at Buffalo, 1980; Ph.D., 1981.

*T. Scott Smith

Associate Professor of Physics (1969). B.A., Princeton University, 1963; Ph.D., University of Maryland, 1967.

Angelo Spina

Instructor in Italian (1987). B.A., Rutgers University, 1972; M.A., 1974.

Walter Stevenson

Instructor in Classical Studies (1989). B.A., Carleton College, 1983.

Jack R. Stodghill

Associate Professor of Mathematics (1967). B.A., Wabash College, 1957; M.S., Purdue University, 1960; M.S., Florida State University, 1975; Ph.D., Brown University, 1971.

David G. Strand

Associate Professor of Political Science (1980). B.A., Lawrence University, 1971; M.A., Columbia University, 1973; M.Phil., 1974; Ph.D., 1979.

*Douglas T. Stuart

Associate Professor of Political Science (1986). B.A., Marist College, 1970; M.A., University of Southern California, 1974; Ph.D., 1979.

Barry A. Tesman

Instructor in Mathematics (1989). B.S., Colby College, 1981.

Cynthia Tompkins

Instructor in Spanish (1988). Licenciada en Letras Modernas, Universidad Nacional de Cordorba, 1981; M.A., Pennsylvania State University, 1985. (1988-89)

^{*}On leave 1989-90.

^{**}On leave First Semester 1989-90.

Guy Vandegrift

Assistant Professor of Physics (1987). B.A., University of California at Berkeley, 1974; Ph.D., 1982.

William W. Vernon

Professor of Geology and Anthropology (1957). B.A., University of New Hampshire, 1952; M.S., Lehigh University, 1955; Ph.D., 1964; M.S., University of Pennsylvania, 1984. Lindback Award for Distinguished Teaching, 1966-67.

Christine Vilardo

Assistant Professor of Dance (1982). B.S., Temple University, 1973; M.E.D., 1976.

Stephen Weinberger

Professor of History (1969). B.A., Northeastern University, 1965; M.A., University of Wisconsin, 1966; Ph.D., 1969.

Barry E. Weingarten

Assistant Professor of Spanish (1988). B.A., George Washington University, 1972; M.A., University of Pennsylvania, 1974; Ph.D., 1978.

*Neil B. Weissman

Associate Professor of History (1975). B.A., Colgate University, 1970; M.A., Princeton University, 1972; Ph.D., 1976. Lindback Award for Distinguished Teaching, 1984-85.

Liza A. Wieland

Assistant Professor of English (1987). B.A., Harvard College, 1981; M.A., Columbia University, 1984; M. Phil., 1985; Ph.D., 1988.

Candie C. Wilderman

Associate Professor of Environmental Science (1974). B.S., Tufts University, 1968; M.A., Harvard University, 1969; Ph.D., Johns Hopkins University, 1984.

William D. Wilgus

Professor of Military Science (1986). B.S., Norwich University, 1967; M.A., Webster University, 1985; Lieutenant Colonel, Aviation/Logistics, U.S. Army.

Mark B. Winokur

Assistant Professor of English (1988). B.A., Brandeis University, 1977; M.A., University of California at Berkeley, 1980; Ph.D., 1986.

Robert P. Winston

Associate Professor of English, Director of the Dickinson Humanities Program in England 1988-90 (1979). B.A., Bates College, 1972; M.A., University of Wisconsin, 1973; Ph.D., 1979.

Neil S. Wolf

Professor of Physics, Director of the Dickinson Center for European Studies in Bologna, 1988-90 (1967).
B.S., Queens College, 1958; M.S., Stevens Institute of Technology, 1960; Ph.D., 1966. Lindback Award for Distinguished Teaching, 1983-84.

Janet Wright

Assistant Professor of Biology (1987). B.S., North Carolina State University, 1970; M.A.T., University of North Carolina, 1974; Ph.D., Cornell University, 1983.

Todd Wronski

Assistant Professor of Dramatic Arts (1987). B.A., Gustavus-Adolphus College, 1978; M.F.A., Trinity University, 1981.

Kausar Yasmin

Assistant Professor of Physics (1988). B.A., Dhaka University, 1975; M.S., New Mexico State University, 1983; Ph.D., 1986.

Maximiliano E. Zúñiga

Instructor in Spanish (1987). B.S., Clarion University, 1971; M.A., West Virginia University, 1974.

Academic Professionals

The date of first appointment to the College appears in parentheses at the end of each individual's title(s). Information is correct as of April 1, 1989.

Robert W. Cavenagh, Jr.

Director of Instructional Media, Part-time Associate Professor of Fine Arts and Education (1972). B.A., Princeton University, 1965; M.Ed., University of Virginia, 1970; Ph.D., Indiana University, 1988.

^{*}On leave 1989-90.

James B. Drake

Technical Director for the Mermaid Players (1974). B.A., Dickinson College, 1970.

Marjorie A. Fitzpatrick

Administrative Coordinator for Internships, Part-time Associate Professor of French (1975;1980).

B.A., College of Our Lady of the Elms, 1957; M.A., Smith College, 1959; Ph.D., University of Toronto, 1968.

John S. Henderson

Director of Off-Campus Studies, Part-time Associate Professor of French (1966).

B.A., Bates College, 1961; M.A., Brown University, 1963; Ph.D., 1966.

Karyn L. Hollis

Director of Writing (1985).

B.A., University of Texas at Austin, 1971; M.A., 1978; Ph.D., University of Southern California, 1986.

Ronald Pirog

Associate Director of Off-Campus Studies, Part-time Assistant Professor of German (1987).

B.A., University of New Hampshire, 1966; M.A., 1968; Ph.D., University of North Carolina at Chapel Hill, 1983.

*David A. Robertson

Gallery Director, Part-time Associate Professor of Fine Arts (1982).

B.A., University of Missouri, 1973; M.A., 1976; Ph.D., University of Pennsylvania, 1983.

Pamela J. Rosenberg

Coordinator of Academic Computing (1986). B.A., Beloit College, 1971; M.A., University of New Hampshire, 1976; Ph.D., Cornell University, 1983.

Library Resources

Joan M. Bechtel

Librarian (1971).

B.A., Wilson College, 1955; M.S. in L.S., Drexel University, 1971; M.A., University of Pennsylvania, 1978.

Ella M. Forsyth

Librarian (1981).

B.M., Oberlin College, 1953; M.M., Mount St. Mary's College, 1964; M.L.S., University of California at Los Angeles, 1976.

*Annette M. LeClair

Librarian (1980).

B.A., University of Minnesota, 1974; M.A., University of Virginia, 1976; M.S. in L.S., University of North Carolina, 1980.

J. Steven McKinzie

Librarian (1988).

B.A., East Texas State University, 1975; M.A., East Carolina University, 1982; M.L.S., Vanderbilt University, 1988.

Sue K. Norman

Librarian (1980).

B.A., State University of New York at Albany, 1967; M.A., 1968; M.A., University of Iowa, 1980.

Kristin S. Senecal

Librarian (1988).

B.A., University of Delaware, 1976; M.S.L.S., University of North Carolina at Chapel Hill, 1977.

John C. Stachacz

Librarian (1981).

B.A., University of New Mexico, 1975; M.A., University of Kentucky, 1977; M.S. in L.S., 1978.

Scott J. Van Jacob

Librarian (1987).

B.A., Western Oregon State College, 1980; M.S., 1983.

Steven F. Vincent

Librarian (1988).

B.A., University of Michigan, 1969; M.S., Western Michigan University, 1975; M.A., 1981.

Physical Education

Darwin P. Breaux

Physical Educator (1989).

B.S., West Chester University, 1977; M.Ed., 1979.

214 References

^{*}On leave 1989-90.

David N. Frohman

Physical Educator (1989).

B.A., Indiana University, 1972; M.Ed., Xavier University, 1974.

Wilbur J. Gobrecht

Associate Professor of Physical Education (1960). B.A., Dickinson College, 1952; M.A., Duke University, 1959.

Donna L. Leitner

Physical Educator (1987).

B.A., Lehigh University, 1982; M.A., 1988.

Joseph E. McEvoy

Physical Educator (1979).

B.S., Springfield College, 1969; M.P.E., 1970; D.P.E., 1975.

Donald J. Nichter

Physical Educator (1983).

B.A., Ithaca College, 1979; M.A., Pennsylvania State University, 1983.

William J. Nickey

Physical Educator (1966).

B.S., West Chester State College, 1957; M.Ed., 1968.

Leslie J. Poolman

Physical Educator, Director of Athletics (1988). B.Ed., Keele University, 1974; M.S., West Virginia University, 1977; Ed.D., 1979.

Joel M. Quattrone

Physical Educator (1987).

B.S., Canisius College, 1982; M.S., 1984.

Julie Ramsey

Physical Educator (1986).

B.S., Lock Haven University, 1983; M.Ed., University of Virginia, 1984.

Robert H. Shank

Physical Educator (1980).

B.S., Millersville State College, 1970; M.Ed., University of Virginia, 1979; Ed.D., 1988.

Eileen M. Sharp

Physical Educator (1986).

B.S., University of New Hampshire, 1972; M.S., 1980.

Edward F. Sweeney

Physical Educator (1985).

B.A., C.W. Post College, 1971; M.Ed., University of Vermont, 1973.

Judith M. Yorio

Physical Educator (1980).

B.S., Springfield College, 1973; M.S., Southern Connecticut State College, 1980.

Administrators

The date of first appointment to the College appears in parentheses at the end of each individual's title(s). Information is correct as of April 1, 1989.

Office of the President

A. Lee Fritschler

President of the College, Lemuel T. Appold Foundation Chair, Part-time Professor of Political Science (1987). B.A., Union College, 1959; M.P.A., Syracuse University, 1960; Ph.D., 1965.

M. Charles Seller

Executive Assistant to the President, Secretary of the College (1975).

B.A., Dickinson College, 1955; M.A., Pennsylvania State University, 1963.

Peter J. Balcziunas

Assistant to the President (1984). B.A., Ohio State University, 1969.

Dorothy M. Warner

Coordinator of Conferences and Special Events (1976).

Division of Academic Affairs

George Allan

Dean of the College, Russell I. Thompson Chair of the Dean of the College, Part-time Professor of Philosophy (1963).

B.A., Grinnell College, 1957; B.D., Union Theological Seminary, 1960; Ph.D., Yale University, 1963. Lindback Award for Distinguished Teaching, 1968-69.

Susan F. Nichols

Associate Dean of the College, Part-time Instructor in Fine Arts (1977).

B.A., University of Iowa, 1960; M.A., 1967.

Margaret D. Garrett

Associate Dean of the College, Part-time Assistant Professor of English (1976).

B.A., Illinois State University, 1957; M.A., Northwestern University, 1971; Ph.D., George Washington University, 1978.

Stephen C. MacDonald

Associate Dean of the College, Part-time Assistant Professor of History (1988).

B.A., Tufts University, 1969; Ph.D., University of Virginia, 1977.

Ronald E. Doernbach

Registrar, Coordinator of Institutional Data Analysis (1974).

B.A., Dickinson College, 1965.

Karen D. Best

Assistant Registrar (1977). B.A., Dickinson College, 1989.

Mary Elizabeth Kirtley

Director of Graduate Decisions, Research Professor of Biological Chemistry (1984).

B.A., University of Chicago, 1956; M.A., Smith College, 1958; Ph.D., Western Reserve University, 1964.

Admissions

J. Larry Mench

Dean of Admissions (1974). B.A., Oberlin College, 1962; M.A., 1963.

R. Russell Shunk

Associate Dean of Admissions (1976). B.A., Lafayette College, 1965; M.A., Lehigh University, 1966.

Kimberlee A. Renfrew

Associate Director of Admissions (1986). B.A., Lafayette College, 1980.

Melissa M. Izquierdo

Assistant Director of Admissions (1987). B.A., Dickinson College, 1987.

Catherine M. McDonald

Assistant Director of Admissions (1987). B.A., Dickinson College, 1987.

Division of Educational Services and Student Affairs

Carmen G. Neuberger

Dean of Educational Services and Student Affairs, Parttime Assistant Professor of Education (1987). B.S., University of Maryland, 1955; M.Ed., American University, 1973; Ed.D., 1977; J.D., 1983.

Mary Watson Carson

Associate Dean of Educational Services and Student Affairs, The George Metzger Chair of the Dean of Women (1968).

B.A., Wichita State University, 1959; M.A., 1960.

Martin W. Redman

Director of Residential Life (1987). B.A., Dickinson College, 1976; M.Ed., University of Pittsburgh, 1985.

Janet E. Cox

Director of the Holland Union Building and Student Activities (1988).

B.A., University of Steubenville, 1982; M.A., Bowling Green State University, 1983.

Cathy L. Cohen

Area Coordinator for Residential Life (1988). B.S., Bucknell University, 1986; M.Ed., University of Vermont, 1988.

Rebecca L. Shaw

Area Coordinator for Residential Life (1988). B.S., Elmira College, 1984; M.S., Shippensburg University, 1988.

Leslie J. Poolman

Director of Athletics, Physical Educator (1988). B.Ed., Keele University, 1974; M.S., West Virginia University, 1977; Ed.D., 1979.

Financial Aid

Donald V. Raley

Director of Financial Aid (1977).
B.A., Blackburn College, 1960; M.A., University of Colorado, 1967.

Madelyn C. Dudzik

Assistant Director of Financial Aid (1985). B.A., University of Michigan, 1971.

Richard A. Heckman

Financial Aid Counselor (1986). B.A., Thiel College, 1975; M.A., West Virginia College of Graduate Studies, 1979.

Counseling, Career, and Health Services

Davis C. Tracy

Director of Counseling Services (1982). B.A., Lehigh University, 1970; M.A., University of Connecticut, 1974; Ph.D., University of Tennessee, 1981.

George E. Obermeier

Coordinator of Drug and Alcohol Education (1988). B.S., Frostburg State College, 1974; M.S., Pennsylvania State University, 1976.

Katharine S. Brooks

Director of Career Services (1984). B.A., Gettysburg College, 1976; M.S., West Virginia University, 1979; Ph.D., 1989.

Mary A. Powell

Director of Health Services (1982). R.N., Norwalk Hospital School of Nursing, 1970; B.S., Nurse Practitioner Certificate, George Washington University, 1978.

Judith May-Bennett

Health Educator (1988). B.S., Lock Haven University, 1965.

*Nancy Cicak

Nurse Practitioner (1985).
R.N., Harrisburg Area Community College, 1978;
Nurse Practitioner Certificate, University of Pennsylvania, 1981.

*Michael O. Daniels

Medical Director (1988).

B.S., Hofstra University, 1974; M.D., Hershey Medical Center, Pennsylvania State University, 1978; Family Practice Board Certificate, 1981.

Division of Business and Financial Affairs

Michael L. Britton

Treasurer (1985).

B.A., University of Massachusetts, 1971; M.Ed., American University, 1974; Ph.D., American University, 1977; M.B.A., University of Minnesota, 1979.

Robert W. Belyea

Associate Treasurer and Comptroller (1968). B.A., Colby College, 1951.

Annette Smith Parker

Assistant Treasurer (1988). B.A., Dickinson College, 1973; M.B.A., Shippensburg University, 1987.

Thomas B. Meyer

Assistant Comptroller (1986). B.S., Susquehanna University, 1968.

Robert H. Rasch

Director of Personnel (1973). B.S., University of Rhode Island, 1965; M.B.A., Western New England College, 1973.

Darlene L. Martin

Assistant Director of Personnel (1988).

Donald Santostefano

Director of the Physical Plant (1988). B.S., Fairfield University, 1975; M.S., Rensselaer Polytechnic Institute, 1979.

Michael S. Helm

Director of Purchasing and Auxiliary Services (1984). B.S., Shippensburg University, 1975.

John M. Davis, III

Manager of the College Store (1987). A.A., Pennsylvania State University, 1985.

*A part-time nurse practitioner and several part-time registered nurses are also associated with the health services staff. Physicians provide health care through special arrangements with the nearby Carlisle Hospital, where 24-hour care is available to students.

Nickolas G. Stamos

Director of Dining Services (1980).
A.A., Harrisburg Area Community College, 1971;
B.S., York College of Pennsylvania, 1974.

Ernest E. Talbot

Director of Campus Security (1971).

Division of Communications and Development

Robert O. White

Executive Director of Communications and Development (1983).

B.A., College of William and Mary, 1964; M.Ed., Rutgers University, 1976.

Jonathan J. Powers

Director of Development (1985). B.A., Washington College, 1973.

Kenneth R. Dudzik

Director of Planned Giving (1984). B.A., Wabash College, 1971; J.D., Western New England College, 1981.

Linda Sowers Luvaas

Director of Corporate and Foundation Support (1985). B.A., Allegheny College, 1978; M.A., Duke University, 1981.

Melissa Combes

Assistant Director of Development (1988). B.A., Washington College, 1985.

Karen L. Neely

Director of Annual Giving (1986). B.A., Dickinson College, 1986.

Maura A. Dean

Assistant Director of Annual Giving (1987). B.A., Dickinson College, 1987.

R. Bruce Wall

Director of Alumni and Parent Relations (1977). B.A., Dickinson College, 1970; M.A., Bowling Green State University, 1975.

Ann Hess Myers

Associate Director of Alumni and Parent Relations (1982).

B.A., Kenyon College, 1979.

Eugene J. Finn

Assistant Director of Alumni and Parent Relations (1988).

B.A., Dickinson College, 1988.

Philip G. Benoit

Director of Communications (1984).

B.A., St. Lawrence University, 1966; M.A., State University of New York at Oswego, 1973.

Nancy Lee Winkelman

Director of Publications (1975). B.A., Western Maryland College; 1951; M.Ed., 1969.

Kelly A. Alsedek

Assistant Director of Publications (1983). B.A., Gettysburg College, 1971.

Computer Services

Pamela J. Rosenberg

Coordinator of Academic Computing (1986). B.A., Beloit College, 1971; M.A., University of New Hampshire, 1976; Ph.D., Cornell University, 1983.

Mary P. Hill

Academic Applications Analyst/Programmer (1989). B.S., University of Pittsburgh, 1986.

John R. Luthy

Coordinator of Administrative Computing (1981). B.A., Dickinson College, 1974.

A. Michael Wolter

Administrative Applications Analyst/Programmer (1986).

B.A., Vassar College, 1986.

Donald B. Newcomer

Systems Analyst/Programmer (1982). B.S., Lebanon Valley College, 1979.

Steven C. Gray

Systems Manager (1985). B.S., Dickinson College, 1981.

Administrators (Retired)

The date of first appointment to the College appears in parentheses at the end of each individual's title. Information is correct as of April 1, 1989.

Leonard G. Doran

Executive Director of Communications and Development, Retired (1973).

B.A., Harvard University, 1942; M.A., George Washington University, 1949.

*Arthur D. Platt

Executive Assistant to the President, Retired (1962). B.S., Trinity College, 1928; M.A., Columbia University, 1935.

*Died December 10, 1988.

Howard G. Baum

Director of Auxiliary Services, Retired (1964). B.A., Dickinson College, 1950.

George L. Eurich

Director of Physical Plant, Retired (1970).

Board of Advisors

The purposes of the Board of Advisors are to provide consultation and advice to the president of the College and to the Board of Trustees in matters relating to the total educational program, the development of the College's physical and financial resources, and the securing of highest quality students for admission to the College. Alumni, parents of present or former students, and other individual friends of the College are eligible for membership. Appointments to the Board of Advisors are made by the chairman of the Board of Trustees. Information is correct as of April 1, 1989.

Officers

Earl D. Weiner

Chairman

Members

Eric Bedell '79 Vice President for Marketing Animalens, Inc. Wellesley, MA Norman R. Bitterman President C.L.S. Corp. Blue Bell, PA

Philip C. Capice '52 President/CEO Raven's Claw Productions Los Angeles, CA

Fred J. Charley '38 President Charley Brothers Realty Co. Greensburg, PA

Robert H. Clarke '80 Vice President and Chief Operating Officer Greenwich International Greenwich, CT

H. Chace Davis, Jr. '50 Managing Director Chapin, Davis & Co., Inc. Baltimore, MD

Homer C. Earll President Earll Forest Products, Inc. Towson, MD

Charles W. Ehrlich '67 Attorney St. Petersburg, FL

Daniel R. Gilbert, Jr. '74 Associate Professor of Management Bucknell University Lewisburg, PA

Ira D. Glick '57 Professor of Psychiatry New York Hospital, Cornell Medical Center New York, NY

Sherwood D. Goldberg '63 Director Worldwide Associates, Inc. Washington, DC Joseph S. Gonnella Dean and Vice President Jefferson Medical College Philadelphia, PA

Perrin C. Hamilton '43 Senior Partner Hepburn, Willcox, Hamilton & Putnam Philadelphia, PA

Ernest E. Jones '66
Executive Director
The Philadelphia Urban Coalition
Philadelphia, PA

Robert L. Jones '54 Forty Fort, PA

Thomas J. Kirlin '84 Project Manager Asbestos Abatement Services Washington, DC

Hesung Chun Koh '51 Director, East Asian Area Studies Human Relations Area Files, Inc. New Haven, CT

Samuel J. McCartney, Jr. '41 Retired Vice President for Human Resources Lanier Business Products, Inc. Atlanta, GA

Bonnie D. Menaker '61 Partner Hepford, Swartz, Menaker & Wilt Harrisburg, PA

Eleanor Pocius Merrill '55 Publisher The WashingtonianWashington, DC

I. David Paley '61 New York, NY

Meyer P. Potamkin, '32 President Boulevard Mortgage Co. Philadelphia, PA C. Stewart Spahr '69 Assistant Vice President Provident National Bank Philadelphia, PA

Earl D. Weiner '60 Partner Sullivan & Cromwell New York, NY

Ray L. Wolfe President Farmers Trust Company Carlisle, PA

Alumni Council

The Alumni Council is the governing body of the General Alumni Association of Dickinson College. The council is composed of thirty members, elected or appointed for three year terms, and membership is open to all alumni. The alumni council acts as a decision making body on issues and programs directly affecting the alumni program, and as an advisory board on matters of College policy or procedure. The council meets on campus at least twice a year, and additionally at the discretion of its president.

Alumni Trustees

John C. Goodchild, Jr. '67 (Term expires 1990) c/o Weightman, Inc. 1818 Market Street Philadelphia, PA 19103 215-561-6100

Katharine E. Bachman, Esq. '75 (Term expires 1991) 12 Thorndike Street Brookline, MA 02146 617-277-9753

Rosalie Enders Dunkle '50 (Term expires 1992) 3609 Canterbury Road Oxford Court Harrisburg, PA 17109 717-545-9355

*Note: elections in progress at time of printing for trustee whose term expires 1993.

Officers

(elections in progress at time of printing)
President
Vice President
Secretary

Term Expires 1990

Richard Craft '81 111 Croton Road Strafford, PA 19087 215-687-0123

R. Lee Holz '57 750 Washington Road Apt. 603 Mt. Lebanon, PA 15228 412-561-2309

William H. Houpt '57 24 Blackburn Road Summit, NJ 07901 201-273-6782

Lawrence B. Landphair '76 16 West 16th Street Apt. 14EN New York, NY 10011 212-645-2495

Martha Lester '77 6326 Morrowfield Avenue Pittsburgh, PA 15217 412-521-2107

Deborah C. Ryerson '75 10426 Juan Calle Des Moines, IA 50322

David F. Snyder, Esq. '73 401 Lincoln Avenue Falls Church, VA 22046 703-241-0419

Susan Studnicki '88 A Presidential Classroom for Young Americans 441 North Lee Street Alexandria, VA 22314 703-780-2191 Linda B. Wallitsch '70 Director of Counseling Muhlenberg College Allentown, PA 18104 215-432-5952

Gina I. Weiner '60 18 Garden Place Brooklyn, NY 11201 718-237-0378

Term Expires 1991

Carolyn W. Cleveland '60 24 Rock Ridge Avenue Greenwich, CT 06831 203-661-1187

Thomas S. Davis, M.D. '62 965 Greenlea Road Hershey, PA 17033 717-533-5948

Laura Hamberger '89 HUB# 729 Dickinson College Carlisle, PA 17013

Charles W. Karns '41 8629 Redwood Drive Vienna, VA 22180 703-560-8738

Gail T. Marks '73 4213 Franklin Street Kensington, MD 20895 301-933-5323

Robert L. McNutt '61 44 Ferndale Drive Berkeley Heights, NJ 07922 201-464-1609

Colleen Miller, Esq. '81 11915 Parklawn Drive #204 Rockville, MD 20852 301-230-0257 Laurie R. Morison '76 453 E. 14th St. Apt. 6H New York, NY 10009 212-228-0921

Joanne M. Wisor '61 815 S. Main Street Geneva, NY 14456 315-789-6754

Charles B. Zwally, Esq. '60 4704 Pine Ridge Road Harrisburg, PA 17110 717-233-1130

Term Expires 1992

(elections in progress at time of printing)

Parents Council

Dickinson's Parents Council members serve as liaison between the College administration and the general parent body. They act as informal admissions representatives of Dickinson and may be contacted by those who desire information about the College from a parent's perspective.

Term Expires 1990

Mr. and Mrs. Warren R. Leonard 908 Berkeley Road Wilmington, DE 19807 302-575-0212

Dr. and Mrs. Joseph Lipa 1021 West Main Street Lansdale, PA 19446 215-368-3070

Mr. Lawrence J. Schoenberg President AGS Computers, Inc. 1139 Spruce Drive Mountainside, NJ 07092 201-654-4321

Term Expires 1991

Dr. and Mrs. Charles L. Duncan 1017 Mt. Alem Drive Hummelstown, PA 17036 717-566-2481

Dr. and Mrs. Francis J. Fishburne 20 Pitt Court Rockville, MD 20850 301-340-7611

Mr. and Mrs. David M. Mace 317 Hollow Tree Ridge Road Darien, CT 06820 203-655-7555

Mr. and Mrs. Ronald Sheppard 111 Chincopee Road Lake Hopatcong, NJ 07849 201-663-3630

Term Expires 1992

Mr. and Mrs. Samuel Asbell 1109 Seagull Lane Cherry Hill, NJ 08003 609-354-1109

Dr. Marshal Greenblatt 10830 Spring Knoll Drive Potomac, MD 20854 301-983-3255

Mr. and Mrs. James D. McDonald 99 Hansell Road Murray Hill, NJ 07974 201-464-8362

Mr. and Mrs. A. Brean Murray 925 Park Avenue New York, NY 10028 212-288-2388

Honors, Awards, and Prizes

Awards to Members of the Faculty

The Lindback Award for Distinguished Teaching

The Christian R. and Mary F. Lindback Foundation instituted this annual award at Dickinson beginning in 1961 as the highest honor the College bestows on members of its faculty.

Selected by the president, the award winner receives a cash honorarium as well as a citation prepared and read by the dean of the college at a dinner for trustees, faculty, and administrators just prior to each Commencement Weekend.

The Lindback Foundation also awards scholarships to students at Dickinson who are selected on the basis of criteria specified by the Foundation.

Previous winners of the Lindback Award for Distinguished Teaching are so identified in the faculty section of the directory in this catalogue.

The Ganoe Award for Inspirational **Teaching**

The Constance and Rose Ganoe Memorial Fund established in 1969 through a bequest of the late William A. Ganoe of the Class of 1902 provides that an award be given annually to a professor at the College selected by the members of the senior class immediately prior to their graduation through a secret balloting process.

The award winner receives a cash honorarium plus the opportunity to use funds accumulating as a result of the endowment supporting the award for the enrichment of his or her teaching and of the academic program at Dickinson.

Previous winners of the Ganoe Award for Inspira-

tional Teaching are so identified in the faculty section of the directory in this catalogue.

Endowed and Named Chairs

The College has a number of endowed and named chairs. The holders of these chairs are elected by the Board of Trustees and the chairs which they hold are indicated in the faculty list. The endowed chairs are as follows:

The Lemuel T. Appold Foundation, endowing the chair of the president of the College, was established by the Board of Trustees from a part of a bequest of Lemuel T. Appold of Baltimore, Maryland, of the Class of 1882 and a generous benefactor of the College.

The Robert Coleman Chair of History The bequest of Robert Coleman, Esq., of Lancaster, Pennsylvania, was designated by the Board of Trustees in 1827 for the endowment of a professorship, making this one of the oldest American professorships.

The Thomas Beaver Chair of English Literature was endowed by Thomas Beaver, Esq., of Danville, Pennsylvania, in 1889.

The Asbury J. Clarke Chair of Latin was established in 1918 by the gift of the widow of Asbury I. Clarke, of the Class of 1863.

The Susan Powers Hoffman Chair of Mathematics was endowed in 1923 and named in memory of Susan Powers Hoffman, of Carlisle.

The Richard V. C. Watkins Chair of Psychology was endowed in 1928 by the beguest of Richard V. C. Watkins, of the Class of 1912.

The Martha Porter Sellers Chair of Rhetoric and the English Language is an endowed professorship established in 1936 by a gift of her son, Prof. Montgomery Porter Sellers, of the Class of 1893.

The Boyd Lee Spahr Chair of American History was endowed in 1948 by the gift of Boyd Lee Spahr, of the Class of 1900.

The George Henry Ketterer and Bertha Curry Ketterer Chair of Religion was endowed in 1949 by the gifts of George Henry Ketterer, of the Class of 1908, and his wife, Bertha Curry Ketterer.

The Robert Blaine Weaver Chair of Political Science was endowed by the bequest of Laura Davidson Weaver, and named for her brother, Robert Blaine Weaver, of the Class of 1874.

The C. Scott Althouse Chair of Chemistry was established in 1950 and named for C. Scott Althouse, a trustee of the College.

The Alfred Victor duPont Chair of Chemistry, named for Alfred Victor duPont, a student at the College, 1814-16, was established in 1950 by the gift of his grandson, the late Irenee duPont, of Wilmington, Delaware.

The Thomas Bowman Chair of Religion was endowed in 1949 by the gift of the Kresge Foundation (Sebastian S. Kresge, L.H.D., Founder), and named for Thomas Bowman of the Class of 1837, the first graduate of Dickinson College to be elected a Bishop of the Methodist Episcopal Church.

The Joseph Priestley Chair of Natural Philosophy was established in 1959 by the gifts of William H. Baker and S. Walter Stauffer in memory of Salome Baker Stauffer.

The William W. Edel Chair in the Humanities was endowed in 1959 by the gift of Merle W. Allen, a College trustee, and his wife, Elizabeth Frederick Allen, "in recognition and commemoration of Dr. Edel's outstanding leadership as president of the College from 1946-1959."

The James Hope Caldwell Memorial Chair was endowed in 1966 by the bequest of Mr. and Mrs. James Hope Caldwell.

The Henry Logan Chair of Economics was established in 1967 by the gift of Henry Logan of the Class of 1910.

The Russell I. Thompson Chair of the Dean of the College was established in 1967 by the gift of Ethel Wright Thompson. The George W. Pedlow, Class of 1901, Chair of Education was established in 1972 in memory of their father by C. Wesley Pedlow, Jr., of the Class of 1934; Elizabeth Pedlow Maginnis, of the Class of 1929; and John Watson Pedlow, of the Class of 1929.

The Glenn E. and Mary L. Todd Chair was established in 1973 by the bequests of Glenn E. Todd, Class of 1912, and Mary Line Todd, Class of 1923.

The Charles A. Dana Professorship Program was established in 1968 by a matching grant of \$250,000 from the Charles A. Dana Foundation. The income from this fund is to be used annually to subsidize the salaries of Dana Professors in varying amounts but in excess of the average salary for full professors at the time of the appointment.

The George Metzger Endowment Fund is held in trust by the trustees of the fund, and the income therefrom paid annually to Dickinson College at the discretion of the trustees to endow the chair of the dean of women at Dickinson College.

The George Metzger Endowment Fund was established in 1963 by the Metzger College trustees in memory of George Metzger of the Class of 1798 of Dickinson College who made a testamentary provision for the establishment of a college for the education of young women after his death. By the action of the board of trustees of Metzger College in 1913, use of Metzger College, Metzger Hall, was granted to Dickinson College as a residence hall for women students. Fifty years later, Dickinson relinquished its use of Metzger Hall, the property was sold, and the proceeds used to establish the George Metzger Endowment Fund.

Dickinson Awards

The Dickinson College Arts Award

Robert Frost, 1958-59, Poetry Eero Saarinen, 1959-1960, Architecture Judith Anderson, 1960-61, Theatre Leonard Baskin, 1963-64, Graphic Arts Walter Piston, 1965-66, Music W. H. Auden, 1967-68, Poetry John Cage, 1969-70, Music The Philadelphia Orchestra, 1972-73, Music Mauricio Lasansky, 1974-75, Printmaking Zelda Fichandler, 1976-77, Drama John Barth, 1980-81, Literature Toshiko Takaezu, 1982-83, Ceramics Thomas Binkley, 1982-83, Music Pennsylvania Ballet, 1983-84, Dance David Mamet, 1984-85, Drama Robert Stone, 1986-87, Literature Tommy Flanagan, 1988-89, Music

Priestley Award

- 1952 Sir Hugh Stott Taylor, for research and teaching in physical chemistry.
- 1953 Paul R. Burkholder, for the discovery of chloromycetin.
- 1954 Karl T. Compton, for peacetime use of atomic energy.
- 1955 Harold C. Urey, for the discovery of deuterium. Nobel Laureate in Chemistry 1934.
- 1956 Detlev W. Bronk, for distinguished service to mankind through biochemistry.
- 1957 Edward Teller, for distinguished work in nuclear physics.
- 1958 George Bogdan Kistiakowski, for work in chemical kinetics and thermodynamics.
- 1959 Willard Frank Libby, for distinguished contributions to the development of carbon dating. Nobel Laureate in Chemistry 1960.
- 1960 Glenn T. Seaborg, for distinguished contributions through nuclear chemistry. Nobel Laureate in Chemistry 1951.
- 1961 Maurice Ewing, for distinguished contributions in the fields of oceanography, climatology, and geothermal measurements.

- 1962 Robert W. Woodward, for the synthesis of organic molecules. Nobel Laureate in Chemistry 1965.
- 1963 Kenneth S. Pitzer, for work in theoretical quantum chemistry.
- 1964 Isador I. Rabi, for work with quantum mechanics and molecular beams. Nobel Laureate in Physics 1944.
- 1965 Joel H. Hildebrand, for research in the fields of solubility and the structure of liquids.
- 1966 Charles H. Townes, for work in microwave spectroscopy and masers. Nobel Laureate in Physics 1964.
- 1967 George W. Beadle, for work in cytology and genetics. Nobel Laureate in Medicine 1958.
- 1968 Marshall W. Nirenberg, for the discovery of the genetic code.
- 1969 Linus C. Pauling, for research on the nature of chemical bonding. Nobel Laureate in Chemistry 1954. Nobel Peace Prize 1962.
- 1970 George Wald, for distinguished contributions to the field of physiology of vision and biochemical evolution. Nobel Laureate in Medicine 1967.
- 1971 Margaret Mead, for distinguished contributions to the field of anthropology.
- 1972 George C. Pimentel, for work in infrared spectroscopy and molecular structure.
- 1973 Philip H. Abelson, for geochemical studies.
- 1974 Henry Eyring, for his contributions to theoretical chemistry, the development of absolute reaction rate theory.
- 1975 Carl Sagan, for his contributions into the exploration of the universe through radioastronomy.
- 1976 John G. Kemeny, for the development of BA-SIC computer language.
- 1977 W. Frank Blair, for environmental studies and ecology.
- 1978 J. Tuzo Wilson, for distinguished contributions in the development of plate tectonics.
- 1979 Melvin Calvin, for work in the chemistry of photosynthesis. Nobel Laureate in Chemistry 1961.
- 1980 Philip Morrison, for radioastronomy studies.
- 1981 Donald Knuth, for his work on computer programming and the design of computerized typography.
- 1982 Peter H. Raven, for his work in systematic botany and biogeography.

- 1983 Stephen Jay Gould, for his contribution to the fields of paleontology, evolutionary biology, and the history of science.
- 1984 Hubert M. Alyea, for his contributions to chemical education.
- 1985 Harold P. Furth, for his contributions to plasma physics.
- 1986 Roald Hoffmann, for his contributions to applied theoretical chemistry. Nobel Laureate in Chemistry 1981
- 1987 Thomas F. Banchoff, for his contributions to the understanding of four dimensional manifolds through computer graphics.
- 1988 Francis H.C. Crick, for his pioneering contributions to the field of molecular biology. Nobel Laureate in Physiology or Medicine 1962.

Honors, Scholarships, and Prizes

Honors Upon Graduation

Latin Honors A student in any field who attains an average of at least 3.75 in the total program at Dickinson College shall be awarded the degree *summa cum laude*.

A student who attains an average of at least 3.50 but less than 3.75 in the total program at Dickinson College shall be awarded the degree *magna cum laude*.

A student who attains an average of at least 3.25 but less than 3.50 in the total program at Dickinson College shall be awarded the degree *cum laude*.

Departmental Honors Departmental Honors are conferred at graduation upon students who meet the departmental standards for graduation with honors. Honors are achieved through independent research and study in the department.

For General Excellence

The Class of 1902 Award Awarded to that member of the junior class who, by vote of the student's classmates, has contributed most to the College.

The Hufstader Senior Prize Endowed by Dr. William F. Hufstader. Awarded to the senior man and woman who, in the judgment of the president of the College, has contributed most to the good of the College.

For Scholastic Excellence

Dean's List Annual recognition awarded to students whose grades were in the top five percent of their respective classes for the academic year.

The College Committee on Academic Standards has the responsibility of recommending recipients of these awards to the faculty. The committee has established as a guideline for eligibility for the various class awards the following: completion of 6, 12, 18, or 24 Dickinson courses with a final letter grade in order to be eligible for freshman, sophomore, junior, or senior awards, respectively.

The James Fowler Rusling Prize Awarded to a graduating senior who excels in scholarship.

The Delaplaine McDaniel Prizes Awarded to two members of the freshman class and to one member of the sophomore class for excellence in scholarship.

The Joseph Middleton and Isabel Mullin Burns Memorial Prize Endowed by Helen Burns Norcross '12, former dean of women. Awarded to the woman student attaining the highest scholastic average during the sophomore year.

The John Patton Memorial Prize Endowed by the Honorable A.E. Patton as a memorial to his father. Awarded for high scholastic standing to a member of each college class.

Sophisters By action of the Board of Trustees, and in keeping with an old Dickinson tradition, the highest ranking junior is named Senior Sophister for his or her final year in the College, while the highest ranking sophomore is named the Junior Sophister for the following year. The distinction of Senior and Junior Sophister carries with it a \$500 prize.

For Excellence in Special Fields

The Paul F. Angiolillo Prize Awarded annually for excellence in Italian Studies. Endowed by friends and alumni.

The Atlantic Richfield Foundation Geology Prize Endowed by a gift from the Atlantic Richfield Foundation and awarded to an outstanding geology major at the end of the junior year to fund that student's research.

The William Lennox Avis Prize in U.S. History Endowed by Minnie Woods Avis.

The Baird Biology Prizes In honor of Spencer Fullerton Baird, Dickinson's most outstanding alumnus in the field of biology. Awarded to two senior biology majors who excel in biology and show promise for future achievement in the field of biology (broadly defined).

The Neilson C. Bridger Memorial Art Prize Endowed by Dr. Meyer P. Potamkin '32. The award is given annually to the fine arts major who, in the judgment of the fine arts faculty, has achieved the highest level of creative arts expression or art historical scholarship during the current academic year. The award may be shared.

The Henry P. Cannon Memorial Prize Endowed by the trustees. Awarded to a member of the sophomore class who excels in mathematics.

The Chi Omega Prize The gift of the Dickinson Chapter. Awarded to a junior or senior woman who excels in economics, political science, sociology, or psychology.

The Class of 1875 Prize Endowed in memory of John H. Ahl, Class of 1875, by his son John C. Ahl. Awarded to the senior who compiles the highest average in economics.

The Class of 1914 Prize Endowed in memory of John C. Ahl. Awarded to the member of the senior class who excels in American history.

The Forrest E. Craver Memorial Mathematics Prize Awarded to a member of the junior class.

The Mervin Grant Filler Memorial Prize Endowed by Tolbert J. Scholl. Awarded for excellence in the classical languages.

The Fine Arts Society Prize Awarded to a senior fine arts major for superior scholarship in art history or exceptional creative visual expression.

The C. W. Fink Memorial Economics Prize

The Ganoe Prize in International Studies Awarded to the senior achieving highest honors in international studies.

The Gould Memorial Drama Prize Provided by Dr. Herbert M. Gould in memory of his father and mother.

The Charles Mortimer Griffin Prize Awarded to a member of the senior class for excellence in religion.

The Wilbur Harrington and Helen Burns Norcross Prize Awarded for excellence in psychology during the junior year.

Jeanette Holzshu Memorial Prize in American Literature

The Richard Howland Prize in Mathematics and Computer Science Awarded to a senior for excellence in mathematics or computer science.

The Caroline Kennedy French Literature Prize Endowed by friends. Awarded annually to a student who reads French easily and who takes delight in French literature.

The John L. King Prize in Accounting Awarded to the senior who has shown proficiency in accounting and who is particularly motivated to apply that knowledge toward the improvement of the quality of life of mankind.

The William W. Landis Memorial Prize in Mathematics Endowed by George C. Landis '20. Awarded to a member of the freshman class.

The Landis-Mohler Prize in Physics Endowed by George G. Landis '20 in memory of Prof. John Fred-

erick Mohler, professor of physics, 1896-1930. Awarded to a member of the freshman class.

The Ruth Sellers Maxwell Scholarship in English Literature Endowed by Robert H. Maxwell '15 in memory of his wife.

The Alice and F. Chapline Moorehead-Barbara Elder Timberlake Award Endowed as a memorial by Caroline Moorehead Elder. Awarded to that student who submits the best piece of verse.

The Joseph J. Myers Prize To be awarded annually to a varsity basketball player achieving academic excellence. Endowed in honor of Joseph J. Myers, Class of 1932, by his wife, Marie Moore Myers, and his brother, Charles E. Myers.

The Wellington A. Parlin Science Scholarship Award Awarded to that junior majoring in biology, chemistry, or physics, who has, during three years at Dickinson, attained the highest scholastic average.

The Gaylard H. Patterson Memorial Prize Awarded to that student in sociology who presents the best sociological analysis of a public policy.

The Pennsylvania Institute of Certified Public Accountants Award Awarded to the outstanding accounting student.

The Ron Phillis Memorial Prize Endowed by members of the Alpha Sigma chapter of Beta Theta Pi and other alumni and friends. Awarded to the outstanding student majoring in the field of biology and having the highest average in that field at the end of the sophomore year.

The Morris W. Prince History Award Endowed by the Class of 1899.

The Margaret McAlpin Ramos Award Awarded to a junior or senior Spanish major.

The Carl A. Rhoades Memorial Prize Awarded annually to one or more students demonstrating outstanding responsibility as members of the College food service.

The Christopher Lee Roberts Prize For students in Latin or Greek, to be used to study abroad in those fields.

The Winfield Davidson Walkley Prizes Endowed by D.R. Walkley, D.C.L., in memory of his son. Awarded to two members of the freshman class who excel in declamation, either forensic or dramatic.

The Richard H. Wanner Prize in Psychology Awarded to an outstanding junior in the Department of Psychology and Education. Endowed by friends and alumni.

The Emil R. and Tamar Weiss Prize for Creative Arts Awarded for the senior year, to one or two students in recognition of their competence, achievement, and promise in the arts. The awards are in support of a senior artistic project.

The Angeline Blake Womer Memorial Prize Awarded each year to that member of the freshman class who attains the highest grade in rhetoric and composition.

The Agnes Sterrett Woods Prize Awarded to a woman student for the best short story or essay.

John David Wright III, Memorial Prize in Classical Languages To be awarded to a freshman studying Latin or Greek.

Scholarships

An abbreviated listing of endowed and unendowed scholarships follows. Complete descriptions of each, including restrictions, etc., are contained in the official records of the College and administered accordingly.

Almost all of the scholarships at Dickinson are awarded to upperclass students on the basis of financial need as part of a student's general financial aid package. The College also offers substantial grant aid beyond the named scholarships listed here.

Unendowed

The Susan Hutton Brenner Scholarship Provided by Dr. Susan H. Brenner to aid students interested in medicine as a career.

Central Pennsylvania United Methodist Conference Scholarships To members of churches of the Central Pennsylvania Conference. Interested students must apply to the conference.

The Mary Dickinson Club Scholarships of \$600 per year were established in 1960 to be awarded to outstanding students who have financial need. Renewable for subsequent years providing financial need continues, exemplary campus citizenship is maintained, and above-average grades are earned.

The Lindback Scholarship Prizes Provided by the trustees of the Christian R. and Mary F. Lindback Foundation to help deserving students who are residents of New Jersey, Pennsylvania, Delaware, and Maryland, without regard to race or religious affiliation, who by reason of their scholastic attainment, character, personality, and all around ability, give great promise of benefiting therefrom and of being useful and valuable citizens of their communities. The selection is not made on the basis of scholarship alone.

The Myrl S. Myers Memorial Scholarship Provided by Alice Brown Myers in memory of her husband.

The N.J. Conference of the United Methodist Church Scholarship Provided by the Commission on Higher Education of the New Jersey Conference. Given to a student who has been a member of a United Methodist Church within the bounds of the Conference.

The Omicron Delta Kappa Award for Leadership—an award established by the Dickinson College circle of Omicron Delta Kappa to recognize outstanding leadership and commitment to the college community by a black underclassman.

United Methodist Scholarships Provided by the Board of Education of the United Methodist Church. Given to a student on recommendation from the pastor of the student's home church who has interest and experience in United Methodist activities, and attained high scholarship.

The U.S. Army ROTC Scholarships Awarded to outstanding sophomore military science students who desire a career as officers in the United States Army. The Kathleen Williams Scholarships Provided by Kenneth M. Williams in memory of his mother. Awarded to students with demonstrated financial need and academic ability, with preference given to residents of New York, New Jersey, and Pennsylvania.

Endowed

The Alanen-Tyska Scholarship. Endowed through a gift from Frank Alanen Tyska '69.

The John M. Arters Scholarship. Endowed by Dr. John M. Arters, Class of 1899. Awarded to students planning to enter the ministry of the United Methodist Church with preference given to young men from Maryland, Delaware, or Maine. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Leo Asbell Memorial Scholarship Endowed by the Asbell family. Preference given to a resident of southern New Jersey.

The Nathan Asbell Memorial Scholarship Endowed by the Asbell family. Preference given to a resident of southern New Jersey.

The Atlantic Richfield Foundation Scholarship Endowed by a gift from the Atlantic Richfield Foundation for geology majors.

The Baldwin Memorial Church Scholarship

The M. Grace Bechtel Memorial Scholarship Awarded to a student preparing for the ministry of the Central Pennsylvania Conference of the United Methodist Church.

The Marguerite A. Beck Scholarship Endowed through a bequest of Marguerite A. Beck in memory of her husband, Oscar Howard Miller '22.

The Willard E. and Helen T. Bittle Scholarship Endowed by a bequest from the estate of Willard E. Bittle of the Class of 1927. Preference is given to student majoring in economics.

David Coyle Blair and Annie Whittemore Blair Scholarship Endowed by their daughter, Eleanor Blair, to provide financial assistance to a student in need with proven academic achievement, solid character, and clear leadership potential.

The Bodine Scholarship Endowed by George I. Bodine, Jr., Esq.

The Dorothy Bailey Bostley Scholarship Endowed through the gifts from her grandson, Joseph T. Clees '81. Awarded to a woman preparing for a career in law.

The Priscilla Bradley Scholarship Endowed by Frank J. Bradley in memory of his wife, Priscilla Charles Bradley, Class of 1932. Awarded to students majoring in mathematics who have demonstrated financial need and above-average academic achievement.

The George L. Brown Scholarship Preference given first to male students from Middle Paxton Township, Dauphin County, Pa.; secondly, to male students from Susquehanna Township, Dauphin County, Pa.; and lastly, to other worthy and eligible male students. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Henry B. Bruner Scholarship Endowed by a bequest from the estate of Henry B. Bruner. Preference given to male residents of Columbia, Pa. who satisfy specified criteria: membership of the First Methodist Church in Columbia; membership of another Methodist church in Columbia; graduate of Columbia Borough High School. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Lloyd A. and Mabel K. Burkholder Fund provides permanent endowment for the Lloyd A. and Mabel K. Burkholder Scholarship and the Lloyd A. and Mabel K. Burkholder Public Affairs Symposium at Dickinson College.

The Carlisle Corporation Scholarships Preference given to children of employees of Carlisle Corporation, then to residents of Carlisle or adjacent territory; and lastly to other eligible students.

The Caroline Hatton Clark Mathematics Scholarships Awarded for outstanding achievement in mathematics.

The Class of 1914 Scholarship

The Class of 1915 Scholarship Preference given to a descendant of the Class of 1915.

The Class of 1917 Scholarship Preference given to a descendant of the Class of 1917.

The Class of 1918 Scholarship Preference given to a descendant of the Class of 1918.

The Class of 1920 Scholarship Endowed by a bequest from the estate of Mildred Conklin Page, Class of 1920.

The Class of 1921 Scholarship Preference given to a descendant of the Class of 1921.

The Class of 1928 Scholarship Preference given to a descendant of the Class of 1928.

The Class of 1930 Scholarship Preference given to a descendant of the Class of 1930.

The Class of 1935 Red Malcolm Scholarship Preference given to a descendant of the Class of 1935.

The Class of 1938 Scholarship

The Class of 1960 Dr. Gilbert Malcolm Scholarship

The Joel Claster Memorial Scholarship Endowed by the Claster family and friends.

The Joseph and Mary Strong Clemens Scholarship Endowed by Joseph Clemens. Awarded to students studying for the ministry of the United Methodist Church.

The John O. Cockey, Jr. Memorial Scholarship Endowed by John O. Cockey and Mrs. R. M. Sheridan.

The Moncure Daniel Conway Scholarship Established by gift of Eleanor Conway Sawyer, grand-daughter of Moncure Conway.

The Eleanor Cooper Scholarship

The Corson Scholarships Endowed in honor of Bishop Fred P. Corson and Frances B. Corson by the Wyoming Conference of the United Methodist Church. Awarded to United Methodist students from the Wyoming Conference.

The Nathan Dodson Cortright Memorial Scholarship Endowed by Mrs. Emma Cortright Keen. Awarded to a student preparing for the ministry.

Margaret Craig Scholarship Endowed through a bequest from Margaret Craig '16.

The Charles A Dana Scholarships Established by the Charles A. Dana Foundation. Approximately 30 renewable scholarships awarded annually to members of the sophomore, junior, and senior classes. A Dana scholar who does not qualify for need-based aid receives a \$100 award; those who are aid recipients receive a Dana Scholarship in the amount of \$100 greater than the grant which would normally be awarded in the aid package. Dana Scholarships are among Dickinson's highest honors and are awarded on the basis of superior academic achievement and demonstrated leadership in the College community.

The William K. Dare Honor Scholarship Endowed by Lemuel T. Appold, Esq. 1882. Awarded to that male student of the freshman, sophomore, or junior class who has attained the highest scholastic average in the work of the previous year.

The Mr. and Mrs. Robert B. Davies Scholarship Awarded to United Methodist students from Schuykill County, Pennsylvania.

The S. Adelbert Delude Scholarship Preference given to a student from New York.

The Dickinson College Fraternity Scholarships Endowed by the alumni of the local chapters of three national fraternities represented on campus: Kappa Sigma, Phi Kappa Sigma, and Sigma Chi. The annual income from each of these separate fraternity funds is awarded with preference given to active members of the respective fraternities. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

Barbara J. Dixon Scholarship Endowed by Mr. and Mrs. Robert Dixon in memory of their daughter, Barbara J. Dixon, Class of 1971. Preference given to an upperclassman majoring in English.

The Lucy Holt Doney Memorial Scholarship Endowed by Jean, Hugh, and John Doney.

The Joseph Ellis Memorial Scholarship Endowed through a bequest from the estate of Joseph Ellis.

The Smith Ely Scholarship Preference given to students from New York City and vicinity.

Lester and Dorothy Etter Scholarship Established in honor of the Etter's service to the Sigma Chi Fraternity spanning six decades. Awarded by house leadership in consultation with the Financial Aid Office to the Sigma Chi who best demonstrates the leadership and organization exemplified by Les Etter during his 35 years as Chapter Advisor.

The William Schuyler Eves Memorial Scholarship Endowed by William Schuyler Eves. Preference given to needy and worthy male students who are members of the Jenkintown (Pa.) Methodist Church. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Farmer's Trust Company Scholarship Preference given to the son or daughter of an employee of the Farmer's Trust Company, Carlisle, Pa.

The Robert M. Ferguson, Jr. Memorial Scholarship Endowed by Grace C. Vale.

The First Presbyterian Church, York, Pennsylvania Scholarships Endowed by Henry Logan '10 to assist in educating qualified students from the Church or Presbytery.

Mary E. Frankenberry Scholarship Endowed through a bequest from Mary E. Frankenberry.

The E. Harold and Florence F. Frantz Scholarships Established by E. Harold and Florence F. Frantz. Preference given to freshmen who may be re-

newed as upperclassmen if satisfactory progress is made. Selection is based on evidence of sound character and intellectual ability.

The Freeman Scholarship Endowed by Frank A. Freeman, Esq.

The Melville Gambrill Memorial Scholarship To provide for young men preparing for the ministry. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Dr. and Mrs. Forney P. George Scholarships For students demonstrating a commitment to human values and the delivery of medical services on a humanistic basis who are preparing to enter the medical professions, including dentistry.

The John Gillespie Memorial Scholarship Endowed by Miss Kate S. Gillespie as a memorial to her father.

The M. Brandt Goodyear Scholarship

The Edna Grace Goodyear Memorial Scholarship Endowed by Samuel M. Goodyear, a former trustee of the College. Preference given to students from Carlisle, Pa.; secondly, to students from Cumberland County, Pa.; and lastly, other eligible students.

The John H. Hackenberg Scholarship Awarded to a student preparing for the United Methodist ministry.

The Herbert G. and Nelle P. Hamme Scholarship Preference given to foreign students studying at Dickinson College.

The Frank Harrison Memorial Scholarship

The Haverstick and Snavely Scholarship

Lester S. Hecht Scholarship

The J. Fred Heisse Scholarship Endowed by his brother, E.W. Heisse. Preference given to preministerial students from the Baltimore Conference of the United Methodist Church or other needy and worthy students.

The Honorable E. Foster Heller Scholarship Endowed by Anna C. Halsey. Awarded to male students requiring funds to continue their Dickinson education. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

John H. Hopkins Scholarship Endowed by the daughters of Dr. John H. Hopkins in his memory. Awarded annually to a chemistry major with an excellent academic record and financial need.

The Horn Scholarship Endowed by J. Edward Horn.

The Richard Howland Memorial Scholarship Endowed through the gifts and a bequest from the estate of Kenneth Howland in memory of his son, Richard Howland, former faculty member at Dickinson College.

The Bruce Hughes Scholarship

The William and Cora Hunt Scholarship Endowed by William and Cora Hunt. Awarded for outstanding academic ability and financial need. Preference given students from Cape May County, New Jersey. Second preference is the State of New Jersey.

Florence B. Hutchison Scholarship Endowed through a bequest from Florence B. Hutchison '17 in memory of her husband, Paul Hutchison.

The William Albert Hutchison Memorial Scholarship Endowed by the Conway Hall Alumni Association. Preference given to descendants of former students of Conway Hall.

The International Business Machines (IBM) Scholarship Endowed by IBM. Preference given to students majoring in science.

The Charles H. B. Kennedy Memorial Scholarship Endowed by members of the "D" Club.

The Kindle Foundation Scholarship Endowed by the Kindle Foundation.

The Leona B. Kline and Sidney D. Kline Scholarship Established by Sidney D. Kline of the Class of 1924 and Leona Barkalow Kline of the Class of 1927. Awarded to students who reveal a dedicated purpose in preparing themselves for constructive citizenship following the completion of their education. First preference given to students who have formally declared their intent to pursue a profession of ordained ministry in a Protestant religious denomination. Others to whom the scholarship may be awarded are students who declare an intention to pursue postgraduate level education through which they will qualify for careers as doctors of medicine, surgeons, health service specialists, or any postgraduate level which would lead to a social benefit to the economy of the public.

The David R. Sieber-Irving E. Kline-Mable Sieber Kline Scholarship

Grace K. Koller Memorial Scholarship Endowed by the Peters family and friends in memory of Grace K. Koller. Preference given to students majoring in music or fine arts.

The Creedin S. and Dorothy W. Kruger Scholarship Fund Established by Creedin S. and Dorothy W. Kruger of the Class of 1928. Preference given to students who are residents of the Carlisle area.

The Harry D. Kruse Scholarship Endowed in memory of Dr. Kruse, a member of the Class of 1922, by his wife and sons. Awarded to students exemplifying high standards of moral conduct and displaying exceptional intellectual potential and attainment.

Lafayette Avenue Presbyterian Church, Brooklyn, New York, Scholarship Endowed by Henry Logan '10 to assist in educating a qualified student from the Church or Presbytery.

J. Boyd and Jant Rogers Landis Memorial Scholarship Awarded on the basis of need, with preference given to a student from Carlisle or Cumberland County.

The Merkel Landis Scholarship Preference given to students from Carlisle, Pa.; secondly, to students from Cumberland County, Pa.; and lastly, other eligible students.

The Frederick M. Lawrence Memorial Scholarship

The Samuel A. Lewis Scholarship Endowed by a bequest from the estate of Samuel A. Lewis, a Dickinson alumnus, to benefit male students at Dickinson. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Albanus Charles Logan Memorial Scholarship Endowed by Maria Dickinson Logan. Preference given to a male graduate of Germantown High School. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Henry Logan Scholarships Endowed by Henry Logan of the Class of 1910.

The David W. Long Applied Music Scholarship Endowed by the Long family, alumni, and friends in memory of David W. Long. Given to provide lessons in applied music for outstanding student musicians in their junior or senior year.

The George Lane Low Scholarship Endowed by Miss Elizabeth A. Low '91, in memory of her brother, to aid deserving students, with preference to be given to students residing in Columbia County, Pennsylvania

The John B. Lucas Scholarship To assist a freshman student from Wilmington, Delaware. Preference given to the son or daughter of an employee of the Penn-Central Company or a former employee of the Atlas Powder Company, now a division of I.C.I. Americas, Inc.

The Richard H. McAndrews Scholarship Endowed by the wearers of the "D" in memory of Associate Professor Emeritus R.H. McAndrews of the Department of Physical Education.

The Barbara Snyder McCrea Scholarship Endowed by a bequest from the estate of Sarah McCrea Chapman Jones of the Class of 1921.

The Bessie McCullough Memorial Scholarship Endowed by her husband.

The Charles Watson McKeehan Scholarship Endowed by Mary A. McKeehan and Charles L. McKeehan and Charle

eehan in memory of their husband and father, a trustee of the College, 1879-95.

The Anthony Mach Memorial Scholarship Preference given to a student entering the final year of studies in Economics.

C. H. Masland & Sons Scholarships Preference given to sons and daughters of employees of C.H. Masland & Sons, Carlisle, Pa., and then to residents of Carlisle or adjacent territory, and lastly to other eligible students.

The May Memorial Association Scholarship Endowed in memory of Joseph M. and Aimee L. May. Preference given to students from the Greater New York area.

The Bishop William Vernon Middleton Scholar-ship Endowed by the Claude Worthington Benedum Foundation. Preference given to students from West Virginia and western Pennsylvania.

The Arthur Milby Scholarship Endowed by Miss Mary R. Burton. Preference given to young men preparing for the ministry. The College makes available funds equal to the amount of this scholarship for female students eligible for financial aid.

The Theodore F. Miller Scholarship

The William Van Axen Miller Memorial Scholarship Fund Established in 1968 by his parents, Mr. and Mrs. Edward A. Miller.

The Roy W. Mohler Scholarship Endowed by his former students at Jefferson Medical School and others. Given in the second semester of the senior year to that student with the greatest need who has been accepted for admission to medical school the following year.

The Monaghan Presbyterian Church, Dillsburg, Pennsylvania, Scholarships Endowed by Henry Logan '10 to assist in educating qualified students from the Church or Presbytery.

The Thomas Montgomery Scholarship Endowed by Colonel Robert H. Montgomery, L.L.D., in memory of his father.

The Charles Nisbet Memorial Scholarship Endowed in the memory of Dr. Charles Nisbet, first President of Dickinson College, by his descendants.

Mary Read Oerther Scholarship Endowed in memory of Mary Read Oerther '26, through a gift from her daughter, Susan S. Larabee.

The Marlin E. Olmsted Scholarships Endowed by Mrs. Vance C. McCormick in memory of her husband, an honorary alumnus of the College.

The John B. Peters Memorial Scholarship Endowed by the Peters family and friends in memory of John B. Peters, Class of 1922 and life trustee. Preference given to students of agricultural background or purpose.

The Charles E. Pettinos Scholarship Endowed by the Charles E. and Joy C. Pettinos Foundation in memory of Mr. Pettinos, a former College trustee.

The Arthur M. Prinz Memorial Scholarship Endowed by Mrs. Arthur Prinz, colleagues, alumni, and friends; for students majoring in economics.

The Reader's Digest Foundation Scholarship

The Ernest C. and Mima J. Reisinger Scholarship Endowed by Reisinger Brothers, Inc., Carlisle, Pa.

The Robert F. Rich Memorial Scholarships Endowed by Robert F. and Patti Rich and the Woolrich Woolen Mills with preference given to children of Woolrich Woolen Mills employees.

The Horace Elton Rogers Scholarship Endowed by his friends in honor of his devoted service to his alma mater. Awarded to a student majoring in physical sciences, with preference given to young men and women majoring in chemistry.

The Charles H. Rorer Memorial Scholarship Endowed by Carrie A.W. Cobb in memory of the Rev. Charles H. Rorer, D.D. Awarded to students preparing for the ministry.

The Howard Lane Rubendall Senior Scholarship Established by Wheel and Chain and Omicron Delta Kappa in honor of Dr. Howard Lane Rubendall, president of the College, 1961-75. Endowed by students and friends. Awarded annually, at the discretion of the president, to a rising senior on the basis of superior academic achievement and demonstrated leadership in the college community.

The Rubendall Scholars Program Established in 1975 in honor of Dr. Howard Lane Rubendall, president of the College, 1961-75. Endowed by friends and alumni in recognition of his commitment to students. Rubendall Scholarships are available to incoming freshmen and may be held by a student throughout his or her career at the College. Awarded on the basis of outstanding ability with first consideration to applicants who have the greatest financial need.

The Edgar H. Rue Memorial Scholarship Fund Endowed by a friend in memory of Edgar H. Rue, Class of 1913. Awarded to students majoring in fine

The Mary Sachs Scholarship Endowed by the trustees of the estate of Miss Mary Sachs.

The Wilmer Wesley Salmon Scholarship Endowed by Cora Belle Salmon in memory of her husband, a trustee of the College, 1913-31.

The Friedrich Sandels Scholarship Endowed by a gift from Friedrich Sandels, Professor Emeritus of German, for students in the humanities.

The Andrew C. Schaedler Foundation Scholarship Endowed by the Andrew C. Schaedler Foundation of Steelton, Pa. Awarded annually to a student who demonstrates financial need and academic ability and who has graduated from a high school in one of the following Pennsylvania counties: Adams, Cumberland, Dauphin, Franklin, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Northumberland, Perry, or York.

The Valerie Schall Scholarship Preference given to students preparing for the United Methodist ministry.

The Charles T. Schoen Scholarships

The Arnold Bishop and Mary Agnes Shaw Scholarship Endowed by Miss Clara W. Shaw, Mrs. Bertha Shaw Nevling, Mrs. Jeanne Shaw Bailey, Calvin Bishop Shaw, and Charles M. Shaw.

The Charles M. Shope Scholarship Endowed by a bequest from the estate of Wilda S. Shope of the Class of 1921. Awarded to students majoring in the division of sciences.

The Emma R. Shope Scholarship Endowed by a bequest from the estate of Wilda S. Shope of the Class of 1921. Awarded to students majoring in the Department of English.

The Wilda S. Shope Scholarship Endowed by a bequest from the estate of Wilda S. Shope of the Class of 1921. Awarded to students majoring in the Department of Classical Studies.

The Paul and Ruth Smith Scholarship

The James Ross Snowden Scholarship Endowed by Mary T. Snowden Stansfield in memory of her father. Preference given to a student pursuing a legal career.

The Mary Ann Ocker Spital Scholarship Preference given to a student preparing for the ministry or a related career.

C.V. Starr Scholarship Endowed by the Starr Foundation as a memorial to its founder. Based upon merit and need, awards are made to classics students.

The William M. Stauffer Scholarship

The Captain John Zug Steese Scholarship Endowed by Mrs. Anna Zug Schaeffer Steese. Given to an upperclassman who has excelled in mathematics and in service to the College.

The Barbara Reamy Strite Scholarship Endowed by Robert L. Reamy in honor of his niece.

The J. William and Helen D. Stuart Scholarship Endowed by Mr. and Mrs. Stuart to provide financial assistance to deserving and needy students at Dickinson College.

The Alfred Swan Music Scholarship Endowed by Dr. Jane Swan and Dr. and Mrs. Truman Bullard in memory of Alfred Julius Swan, composer, scholar, and teacher; to provide lessons in applied music for outstanding student musicians.

The Fayette N. Talley Memorial Scholarship Endowed by Fayette N. Talley '16.

The Jane Starner Taylor Memorial Scholarship Endowed through a bequest from the estate of Jane Starner Taylor '21.

Ruby R. Vale Scholarship Permanently endowed scholarship from the Ruby R. Vale Foundation, established as a memorial to Ruby R. Vale, Class of 1896, who was a trustee of Dickinson College from 1917 until his death in 1961.

The Martin Van Blarcom Scholarship Preference to be given to a resident of West Chester County, New York.

The Moses Van Campen Chapter D.A.R. Scholarship Endowed by Miss Elizabeth A. Low. Preference given to students from Columbia County, Pa., or from adjacent counties.

The Julia Van Dusen Scholarship Endowed by Henry Logan '10. Preference given to residents of the Greater New York City area.

Edna Carol Walton Scholarship Endowed in memory of Edna Carol Walton, who died while a student at Dickinson; established through her mother's will.

The Albert and Naomi Watson Scholarship Preference given to a student from Carlisle.

The M. William Wedell Scholarship Endowed by Meta Hofer in memory of her brother.

The M. Helen Lehman Whitmoyer Memorial Scholarship Endowed by Raymond B. Whitmoyer '13 in memory of his wife.

The Ella Stickney Willey Scholarship

The Percy and Phyllis Wilson Memorial Scholarship Endowed through a bequest from the estates of Percy '35 and Phyllis Wilson.

The Annie Windolph Scholarship Awarded to a student or students preparing for a career in dentistry.

The Professor Herbert Wing, Jr. Scholarship Endowed in memory of Prof. Herbert Wing by fellow faculty members and by his son and daughter-in-law, Herbert G. '48 and Doris '45 Wing. Awarded to classics students.

The Robert J. and Joanne Hardick Wise Scholarships

The Reverend William Wood Scholarship Endowed by Miss Sarah Wood.

The Helen Kisner Woodward Scholarships Endowed by Helen Kisner Woodward '08.

The Hugh B. Woodward Scholarships Endowed by the Hugh B. Woodward '08 and Helen K. Woodward '08 Trust.

The Emmeline Matilda Van Rensselaer Yard Memorial Scholarships Endowed by John L. Yard, in memory of his wife. Preference given to students preparing to enter the ministry.

The Blanche G. and Henry L. Yeagley Scholarship Endowed by Dr. and Mrs. Henry L. Yeagley. Awarded to students majoring in physical sciences who demonstrate financial need, scholastic achievement, and strength of character. Preference given to students majoring in physics and astronomy.

The Charles K. Zug Memorial Scholarship Endowed by Lemuel Towers Appold, Esq., 1882, in memory of Charles K. Zug, 1880, a trustee of the College.

Loan Funds

The Cornelia C. Thumm Fund

The American Bankers Association Foundation for Education in Economics Loan Scholarship

The Emily May Phelps Atwood Loan Fund Established by her parents, Mr. and Mrs. Andrew H. Phelps.

The Board of Education of the United Methodist Church Student Loan Fund For members of that church.

The Central Pennsylvania Conference Loan Fund

Carlyle Reede Earp and Elizabeth V. Jacobs Earp Student Tuition Loan Fund

The Emergency Loan Fund Administered by the dean of educational services.

The Clara Riegel Stine Fund Used to assist students studying for the ministry of the United Methodist Church.

The Maria Elizabeth Vale Student Self-Help Fund Endowed by Ruby R. Vale, Esq., '98 in memory of his daughter.

The Mary A. Wilcox Memorial Fund Endowed by A. Dorothea Wilcox.

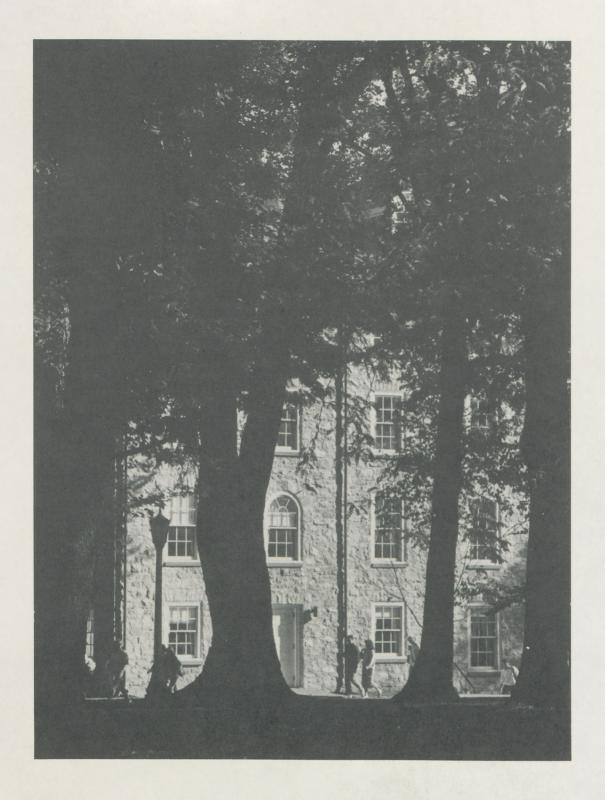
Students of the College may be eligible for other scholarship and loan funds which are not administered by the College. Information concerning all loan opportunities may be obtained from the director of financial aid or from the treasurer of the College.

Central Pennsylvania Consortium

he Central Pennsylvania Consortium (Dickinson, Franklin and Marshall, and Gettysburg Colleges) was formed in 1968 in order to provide an opportunity for exchange of educational ideas and information among faculty, administrators, and students of the cooperating institutions. Through joint action, means have been found to strengthen and broaden existing programs, and to offer a number of worthwhile cooperative programs that could not be undertaken by a single institution. Areas of cooperation include faculty development, student and faculty exchange, jointly developed scholarly conferences, shared visiting lecturers, dance performance exchange, student and faculty workshops, library development, and administrative sharing.

Through the Central Pennsylvania Consortium, the member colleges have found a vehicle for engaging in cooperative education and research activity. This cooperation does not impinge upon the autonomy of the participating institutions, but allows them to build upon complementary strengths and to develop new initiatives in concert. The central office of the Central Pennsylvania Consortium is housed on the Gettysburg College campus. The CPC Director is responsible to a three-member board of directors, composed of the presidents of the three consortium colleges, and works cooperatively with the Consortium Council of Academic Deans in developing programming.

The Consortium provides opportunities for exchanges by students and faculty and for other off-campus study. Students may take a single course or enroll at the "host" college for a semester, or a full year. Interested students should consult the Exchange Coordinator in the Office of Off-Campus Studies.



The Campus

ince its inception in 1773, Dickinson College has occupied facilities on or near its present site. Its oldest surviving building, West College, was constructed in 1804 to replace an earlier structure destroyed by fire. "Old West" and other early buildings occupy the John Dickinson Campus which is surrounded by a low limestone wall built in 1833 and is noted for its lawn with many old and beautiful trees. In 1963, the Federal Government designated Old West a National Historic Landmark. As the College has grown, it has created new facilities to the south and west. The Benjamin Rush campus, named for the famous colonial physician who was an active proponent of the College, is to the south and includes several dormitories, open areas for recreation, and the Allison United Methodist Church.

To the west of the John Dickinson campus is the Charles Nisbet campus, named for the College's first president. It includes the Boyd Lee Spahr Library, the Anita Tuvin Schlechter Auditorium, the Holland Union, and several dormitories and fraternity houses.

Farther west are the College's primary athletic facilities, newest and most notable of which is the Kline Sports Center, completed in 1980. The fields close to the center also contain football, tennis, field hockey/lacrosse, and soccer areas, a stadium, and fieldhouse. For several years, this area has been used as the preseason camp of the Washington Redskins.

Native limestone predominates as a building material, helping link new and old architecture. Trees, lawns, and landscaping set off pleasant areas for outdoor classes or quiet conversation.

College Buildings

West College (1804) originally housed the entire college; now it is the main administrative building. In addition to administrative offices it houses the Durbin Oratory (an interfaith chapel), Memorial Hall (where faculty meetings and lectures take place), and the McCauley Room.

The Boyd Lee Spahr Library (1967) houses the college collections including printed materials in every form, recordings, microfilm, photographs, and manuscripts. The library provides seating for 645 readers, including closed carrels for faculty use and honors carrels for assignment to students pursuing independent studies. Open stack areas are concentrated on the upper and lower levels. Reference and audiovisual areas are located on the main floor. The Alexander A. Sharp Room near the main entrance offers an opportunity for relaxation in an attractive setting. On the upper level, the Alvah A. Wallace Lounge commands a broad view of the Benjamin Rush Campus and the May Morris Room houses Dickinson's special collections. (For further information, see Academic Resources, page 172.)

The Bernard Center for the Humanities (1970) is an extensive restoration of East College, originally constructed in 1836, renamed for B.A. and Rebecca S. Bernard. The departments of English, Classical Languages, Philosophy, and Religion are located here in addition to classrooms, departmental libraries, seminar rooms, and faculty offices.

Althouse Science Hall (1958) is named in honor of C. Scott Althouse and contains the Department of Chemistry, a lecture hall, classrooms, teaching laboratories, research laboratories, the chemistry library, the Bonisteel-Yeagley Multiple Telescope Observatory, and faculty offices.

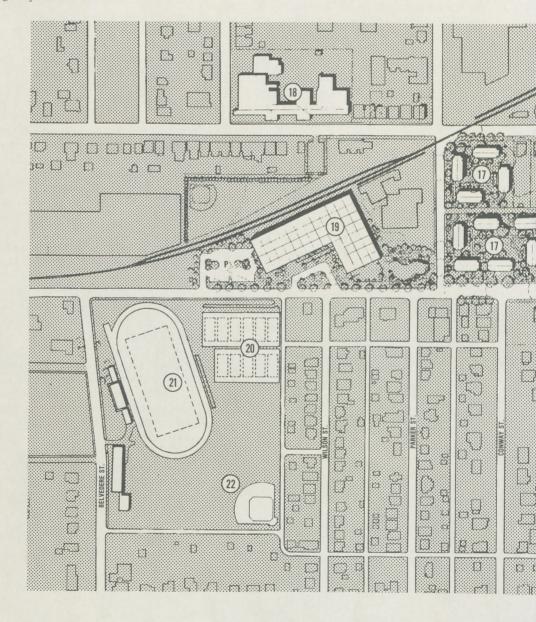
Tome Scientific Building (1883, renovated 1958) contains the Department of Physics and Astronomy and lecture halls, laboratories, the Roscoe O. Bonisteel Planetarium, and research offices.

continued on page 242

Map Legend

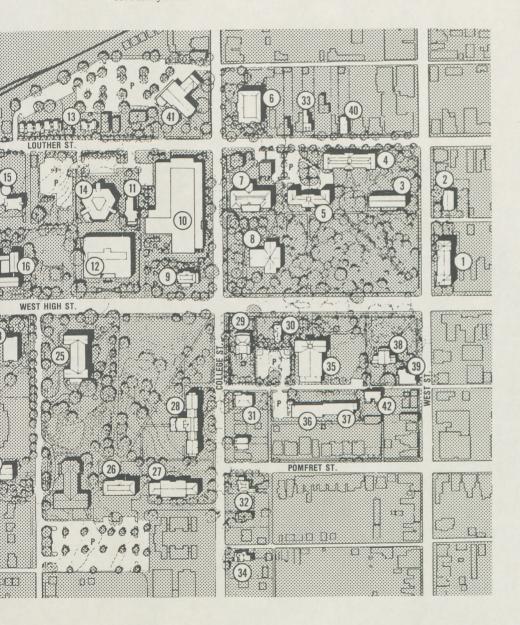
- 1. Denny Hall
- 2. Stuart House
- 3. Bernard Center
- 4. Jacob Tome Scientific Building
- 5. West College
- 6. Dana Hall of Biology
- 7. Althouse Science Building
- 8. Bosler Hall
- 9. Biddle House
- 10. Holland Union Building
- 11. Montgomery House

- 12. Spahr Library
- 13. Townhouse Residences
- 14. Anita Tuvin Schlechter Auditorium
- 15. Kisner-Woodward Hall
- 16. McKenney Hall
- 17. Quadrangle Residence Halls
- 18. Buildings and Grounds
- 19. Kline Life/Sports Learning Center
- 20. Hays Tennis Courts
- 21. Herman Bosler Biddle Athletic Field
- 22. Athletic Field



- 23. Malcolm Hall
- 24. Mathews House
- 25. Morgan Hall
- 26. Witwer Hall 27. Adams Hall
- 28. Drayer Hall
- 29. Admissions Building
- 30. Sellers House
- 31. Todd House
- 32. Landis House
- 33. Faculty-Alumni Club

- 34. Strayer House
- 35. Weiss Center for the Arts
- 36. Communications and Development
- 37. South College Computer Center
- 38. President's House
- 39. Reed Hall
- 40. Cook International House
- 41. Benjamin D. James Center
- P. Parking



Dana Biology Building (1966), named in honor of Charles A. Dana, houses the Department of Biology, lecture halls, laboratories, the departmental library, research offices, and a greenhouse.

The Benjamin D. James Center (dedicated 1987) is a newly acquired facility which has been redesigned to provide classrooms, laboratories and offices for the Departments of Geology and Psychology.

Denny Hall (1905, renovated 1984) houses the Departments of History, Political Science, Anthropology, Sociology, East Asian Studies, and American Studies.

South College (1948, renovated 1970) contains the Department of Mathematical Sciences, classrooms, and offices. The College Computer Center is located here.

Bosler Hall (1884, renovated 1983) contains the Departments of Modern Languages and Education as well as classrooms, seminar rooms, offices, the Instructional Media Center, study facilities, and a computer terminal room.

The Emil R. Weiss Center for the Arts (1983) houses the Departments of Music and Fine Arts, the Trout Gallery, and the Rubendall Recital Hall. A small residential wing houses students and provides the residents with access to music and art studios.

Holland Union Building (1964) is named in honor of Homer C. Holland. Appropriately called "the HUB", the union is the center for student services. It houses the college dining room, Mathers Theatre, the Union Station snack bar, the social hall, the counseling center, the chaplain's office, the Office of Student Services, the writing center, meeting rooms, offices, the radio station, a game room, the college store, the student publications office, a television lounge, the campus post office, and the campus security office.

The Anita Tuvin Schlechter Auditorium (1971) is named in honor of the daughter of Louis A. Tuvin, principal donor. This facility is equipped for three separate performances or as a theater in the round.

Communications and Development Building (1981) houses the Offices of Alumni Affairs, Communications, Development, and Publications. A lounge area is used by the college community. The building also houses some classrooms for mathematical sciences, and is connected to South College.

The Herman Bosler Biddle Memorial Athletic Field is the location for collegiate athletics. The 12-acre area contains a football field, tartan track, tennis courts, fields for soccer, field hockey, and lacrosse, baseball diamond, permanent stands, press box, field house, and storage facilities.

Kline Life/Sports Learning Center (1980) is named in memory of Josiah W. and Bessie H. Kline and houses the Department of Physical Education. The 86,000-foot facility contains a multi-purpose gymnasium, 25-yard eight-lane swimming pool with separate diving tank, racquetball and squash courts, dance and exercise areas, offices, seminar room, training room, and weight room. The field house area includes a 1/8 mile perimeter track and enough space for four simultaneous court games.

The Sports and Recreation Area is 19 acres located west the campus along Route 11.

The Winfield and Isabelle Cook International House (dedicated 1986) contains the Office of Off-Campus Studies and Internship Office which coordinate many of the College's international education activities, including Dickinson's study-abroad programs and internships overseas.



Dickinson College 243

INDEX

	P.1 0 165
Academic Calendar inside back cover	Bologna Center
Academic Policies	Bremen Program
Academic Program29	Buildings
Academic Resources	Business, Financial and Business
Academic Professionals	Analysis, Courses in
Academic Violations Hearings 194	
Accreditation inside front cover	Calendar, Academic inside back cover
Administration	Campus
Admission	Map of
Advanced Credit	Size of
Common Application Plan	Campus Police
Deadlines	Career Services
Deferred	Catalogue, Use of
Early Admission, also Early Decision 16	Center for European Studies in Bologna 165
Foreign Students	Central Pennsylvania Consortium 237
Interview	Changes in Course Schedule 176
Requirements	Chemistry, Courses in 48
Special	Chinese, Courses in 51
Standardized Test Requirements	Classical Studies, Courses in 52
Statement on Physical and	Classical Studies in Rome
Learning Disabilities	Class Size
Transfer Students	Cocurricular Activities
Advanced Placement	College Board Achievement Tests
Advising, Academic	College Seal
Advisors, Board of	Common Application Plan 16
Aid, Financial	Community, The College
Alumni Admissions Program	Comparative Civilizations, Courses in 56
Alumni Council	Requirements
American Studies, Courses in	Computer Facilities
Anthropology, Courses in	Computer Science, Courses in
Appalachian Semester	Concentration, Field of
Archaeology, Courses in	Consortium Exchange Program
Arts Award	Continuing Education
	Correspondence
Recipients	Directions For inside front cover
Asian Studies, East; Courses in	Counseling Services
Astronomy, Courses in	Course Schedule Changes
Athletics	Course Credit
Auditing a Course	
Automobiles, Policy on	Course Failure
Awards	Course Load
Arts Award	Courses of Instruction
Priestley Award	Courses of Study
D: D : D	Credit for Courses
Binary Engineering Program	Credit/No Credit
Biology, Courses in	Credit, Work at other Institutions 179
Black Arts Festival	Cross-Cultural Studies
Board of Advisors	Cultural Affairs
Board of Trustees	Curriculum

Dance	Financial Information
Deferred Admissions	Fine Arts, Courses in 78
Degree, Requirements	Flaherty Lecture
Departmental Honors	Food Service
Dickinson College, Facts 1	Foreign Language Integration 162
Dickinson College, Overview 9	Foreign Student Admissions
Dickinson Review	Founding, College
Dickinson Summer Abroad Programs 167	Fraternities
Dining Services	French, Courses in 82
Dismissal	Freshman Admissions
Distribution Courses	Freshman Seminars
Requirements	
Drama	Gallery, The Trout
Dramatic Arts, Courses in 57	General Information
Diamatic firts, Courses in	Admission
Early Admissions	Dickinson College. 9
	Financial
Early Decision	
East Asian Studies, Courses in	Geology, Courses in
Economics, Courses in	German, Courses in
Education, Courses in	Glover Memorial Lectures
Employment, Campus and Summer 27, 28	Grading
Endowed and Named Chairs	Credit/No Credit
Endowment 1	Incomplete
Engineering Program	Pass/Fail
England, Summer Semester in 168	Year Courses
English, Courses in	Graduate and Professional Study, Office for 191
Enrichment Program, High School 24	Graduation Honors
Enrollment	Graduation Requirements
Entrance Requirements	Greek, Courses in 54
Environment, Learning	Greek Life
Environmental Studies Program	Grievance Board, Student 194
European/Asian Studies, Institute of 168	Guest Student Program
Expenses, College	
Extracurricular Activities	Health Center
	Hebrew, Courses in
Facts, Dickinson College 1	High School Enrichment Program 24
Faculty	History, Classical, Courses in 53
Emeriti	History, Courses in
Number 1	History of the College
Teaching	Honorary Societies
Failure	Honors
Fee Schedule	Departmental
Structure	Upon Graduation
Field of Concentration Requirements	Housing
Film	Humanities, Courses in
Financial Aid	Distribution Courses
Campus Employment	Distribution Courses
	In Absentia
8	
Grants	Incomplete Grades
Loans	Independent Research
Financial and Business Analysis, Courses in 77	Independent Study
Financial Data, College 1	Information, General 9

Dickinson College Index 245

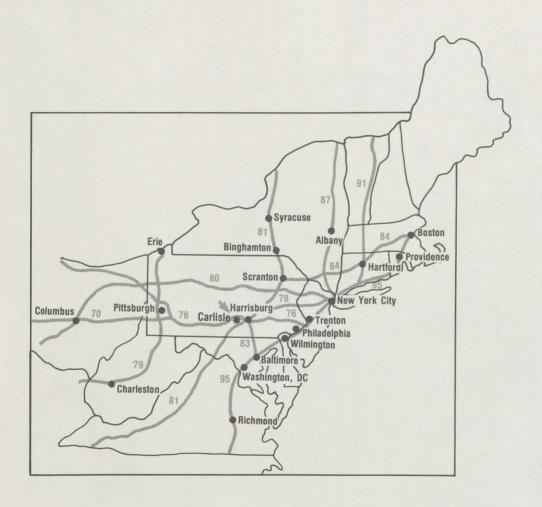
Institute of European/Asian Studies 168	Natural Sciences, Distribution Courses 31
Integrated Study	Newspaper, Student
Intercollegiate Athletics	Nisbet Scholars Program
Interdisciplinary Major	Non-Degree Student Status 24, 180
International Education	
Student Exchange Program	Observatory
International Studies, Courses in	Off-Campus Study
Internships	Abroad
Interview, Admissions	In the U.S
Italian, Courses in 82	Overview, Dickinson College 9
Italian Studies	
	Parents Council
Japanese, Courses in	Pass/Fail Grading
Japan Program	Payment Plans
Judaic Studies	Payment Procedure
Judicial Boards	Performances, Dance
	Performances, Dramatic
Language Houses and Clubs	Performances, Musical
Language Immersion Programs	Pflaum Lectures in History
Language Requirement	Phi Beta Kappa
Latin, Courses in	Philosophy, Courses in
Latin American Studies	Physical and Learning Disabilities
Latin Honors	Physical Education, Courses in
Learning Environment	Physical Education Requirements 32
Leave of Absence	Physics and Astronomy, Courses in 127
Lectures	Physics, Courses in
Liberal Arts Tradition	Placement, Advanced
Library	Planetarium
Library Resources 1, 106, 172, 239	Policies
Living and Learning on Campus 181	Academic
Loan Funds	Alcohol and Drugs
Location of the College	Animals
	Automobiles
Majors, List of	Residential
Special	Policy and Management Studies 131
Málaga Program	Political Science, Courses in
Management Studies, Policy and	Portuguese, Courses in
Map	Preprofessional Advising
How to Get to the Campus	Priestley Celebration
Of the Campus	Prizes
Marine Studies Program	Program, Academic
Mathematics, Courses in	Programs of Study
Distribution Courses	Psychology, Courses in
Media Center	Public Affairs Symposium
Microcosm	Public Speaking, Courses in
Military Science	7
Minimum Standards 179	Rabinowitz Program
Minority Recruitment	Radio Station, College
Morgan Lectureship	Readmission
Multicultural Fair	Recreation, Athletic
Music, Courses in	References
Music, Cocurricular	Refunds

246 Index 1989-90 Catalogue

Registration Deposit	Off Campus Study in the U.S 170
Registration for Courses	Appalachian Semester170
Religion, Courses in	South Asian Studies
Religious Life	Binary Engineering171
Requirements for Admission	Consortium Exchange
Requirements for the Degree	Marine Studies Program171
Comparative Civilizations	Washington Semester 172
Cross-Cultural Studies	Student-Faculty Ratio
Distribution Courses	Student Government
Field of Concentration	Student Grievance Board
Freshman Seminars	Student Media
Languages	Student Senate
Physical Education	Student Status
Research, Independent	Study Abroad
Residence Halls	Summer Abroad Programs
Residence Hall Security	Roman Britain Program 167
Residential Policies	Semester in England
Residential Services	Field School in Cultural Anthropology 168
Rome, Study in	
Roman Britain Program	Table of Contents 7
ROTC	Teacher Education Program 67
Rush Award	Toulouse Center
Russian, Courses in	Transfer Admissions
Russian and Soviet Area Studies	Transfer Credit
	Trout Gallery, The
Safety and Security Procedures	Trustees, Board of
Schedule Changes	Tuition
Late	Tutorial Study
Scholarships	
Scholastic Aptitude Tests (SAT)	Using This Catalogue 6
Science, Courses in	
Computer	Violations
Mathematical	Academic
Military113	Hearings Board
Seal of the College 5	Social
Security	
Self-Developed Major	Washington Semester
Social Policies	Withdrawal from College
Social Sciences, Distribution Courses	Withdrawal from Course 176
Social Violations Hearings Board	Work Study Program 27
Societies	Writing Center
Sociology, Courses in	Writing Program
Sororities	
South Asian Studies	Yearbook, College
(University of Pennsylvania)	
Spahr Lectures in Americana	
Spahr Library	
Spanish, Courses in	
Special Approaches to Study	
Special Interest Housing	
Special Majors	
Special Programs of Study	
-F	

Dickinson College Index 247

How to Get to Dickinson



1989-1990 ACADEMIC CALENDAR

Fall 1989 Semester

New Student Orientation Begins Freshman Seminars Begin

Registration

Convocation

Classes Begin

Last Day to Add/Drop Courses or Change To/From Pass/Fail

Last Day to Change in Level for Language, Math and Science Courses

Roll Call Grades Due

Mid-Term Pause*

Off-Campus Study Pre-Registration for Spring 1990 Semester

Pre-Registration for the Spring 1990 Semester

Last Day to Withdraw from a Course

With a "W" Grade Thanksgiving Vacation

Classes End Reading Period Days Final Exam Days All Grades Due

Spring 1990 Semester

New Student Orientation Begins

Registration Classes Begin

Last Day to Add/Drop Courses or Change To/From Pass/Fail

Last Day to Change in Level for

Language, Math and Science Courses

Roll Call Grades Due

Off-Campus Study Pre-Registration for Fall 1990 Semester

Spring Vacation

Pre-Registration for the Fall 1990 Semester

Last Day to Withdraw from a Course With a "W" grade

Classes End

Reading Period Days Final Exam Days

Senior Grades Due

All Other Grades Due

Baccalaureate

Commencement

Friday, August 25 Saturday, August 26 Tuesday, August 29 7:30 pm, Tuesday, August 29

Wednesday, August 30 Tuesday, September 12

Friday, September 29 By NOON - Tuesday, October 17 5 pm, Wednesday, October 18 thru 8 am, Monday, October 23 Monday, October 9 thru Monday, October 23

Monday, October 30 thru Monday, November 6

Tuesday, November 7
5 pm, Tuesday, November 21 thru
8 am, Monday, November 27
Friday, December 8
December 9, 10, 13 & 17
December 11, 12, 14, 15, 16, 18 & 19
By NOON - Tuesday, January 2, 1990

Sunday, January 21 Tuesday, January 23 Wednesday, January 24

Tuesday, February 6

Friday, February 23
By NOON - Monday, March 12
Monday, February 26 thru
Monday, March 12
5 pm, Friday, March 16 thru
8 am, Monday, March 26
Monday, April 2 thru Monday,
April 9

Tuesday, April 10 Friday, May 4 May 5, 6, 9 & 13 May 7, 8, 10, 11, 12, 14 & 15 By NOON - Wednesday, May 16 By NOON - Tuesday, May 22 Saturday, May 19 Sunday, May 20



DICKINSON COLLEGE
Carlisle, Pennsylvania 17013-2896
Founded 1773
Coed, Liberal Arts, Independent